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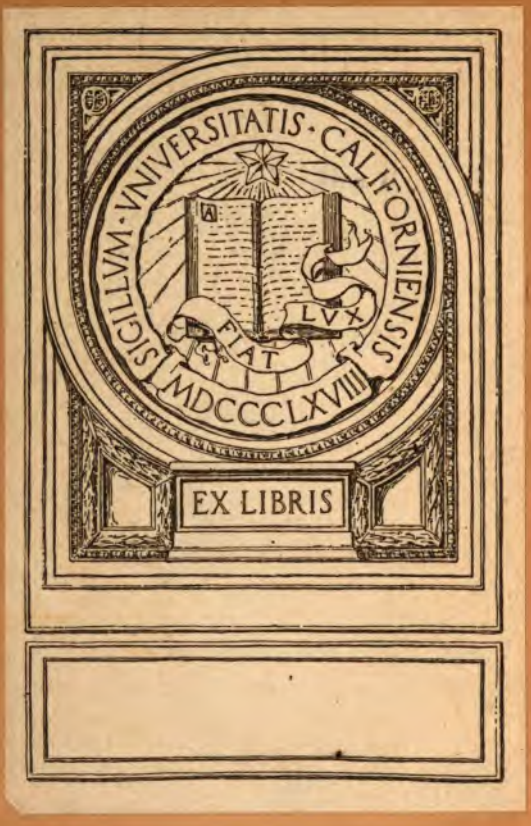
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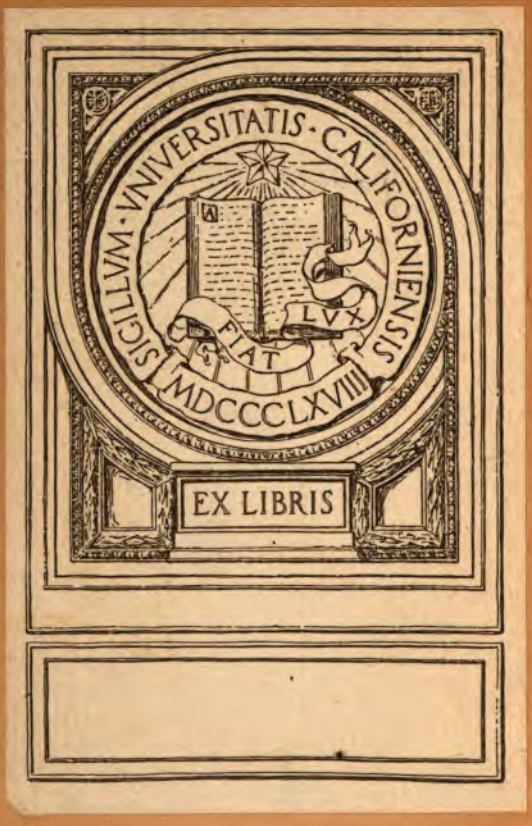
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FRENCH SECONDARY SCHOOLS

FRENCH SECONDARY SCHOOLS

AN ACCOUNT OF THE ORIGIN, DEVELOPMENT AND PRESENT ORGANIZATION OF SECONDARY EDUCATION IN FRANCE

BY

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SECOND EDITION

LONGMANS, GREEN, AND CO.
FOURTH AVENUE & 30TH STREET, NEW YORK
LONDON, BOMBAY, CALCUTTA AND MADRAS
1915

LA695
T3
1915

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BY LONGMANS, GREEN, AND CO.

First edition, April, 1910.
Revised August, 1915.

UNIV. OF CALIFORNIA

THE UNIVERSITY PRESS, CAMBRIDGE, U. S. A.

TO MY WIFE

355223

PREFACE

THIS volume is offered to the public with the hope of affording a source of information which shall satisfy the inquiries that are becoming more and more frequent as to the progress of education in France. For more than seventy-five years Germany has been frequented by American scholars in the effort to gain new light toward the solution of some of the vexing educational problems that have confronted us. It is an open question whether or not in the early days France had anything worth while in her educational system to repay the trouble of making an extended study of the conditions in that country. Since the Franco-Prussian war, however, she has been quietly and unostentatiously forging to the fore, so that to-day she is fairly among the very leaders. The progress that she has made during the last thirty years is quite without a parallel within the same length of time in the educational history of the world. To be sure, the most striking advance has been registered in the fields of primary and industrial education, but the development in the domain of secondary education is likely to have an only less significant effect upon the intellectual progress of the nation.

This study is confined to the field of the state secondary schools. The reader will therefore look in vain, for instance, for any discussion of the law of separation that has been such a prominent subject of consideration during the last few years. This whole question is a purely religious one, and affects public education only very indirectly. As has been pointed out in the text, there has really been no sudden uprising against the church. The beginning of this change

of heart even antedates the reign of Henry IV. Ever since that time the lay element has been quietly transferring influence from the church side of the balance, but it was not until the period of the Third Republic that this change had become sufficient to move the scale beam from its time-honored position. Now clerical influence has been definitely and finally banished from the dominant place it once occupied in the public school system.

The material herein presented was gathered during a year's stay in Paris, partly through culling over a mass of miscellaneous documents and other printed matter (for the French have no complete account of their own secondary school system that might have served as a point of departure), but largely through first-hand contact with the schools themselves — personal interviews with head masters and censors, visits to class rooms in Paris and in the provincial lycées and colleges, and numerous conversations both in and out of school with educational workers of all grades that were in closest touch with the secondary school conditions in France to-day. Every effort has been made to get as comprehensive a view as possible of the actual workings of the secondary schools, lycées and colleges both for boys and girls, in the provinces no less than in the capital. To this end, after attending more than one hundred classes in Paris itself, visits were made to the schools in Armentières, Auxerre, Beaune, Dijon, Fontainbleau, Lille, Saint-Quentin, and Sens, and finally to the higher normal schools for men in Paris, and for women at Sèvres.

If there be anything here to offend the casual French reader who may chance upon these pages, I shall regret exceedingly to seem thus ungraciously to repay all the mani fold kindnesses I have received in the fair land of France. I have attempted to set forth conditions as they appear from the American standpoint, commending here, perhaps commenting upon adversely there, but in no case necessarily

questioning the wisdom of the practice or condition from the French point of view. Throughout it all, I have attempted to play the part of the sympathetic critic.

It is a great pleasure once more to bear witness to the rare courtesy that has universally been extended to me, and to a patience and consideration far in excess of what the poor attempts of a sometimes bothersome and persistent foreigner who speaks the language but indifferently well would appear to merit. The list would be long indeed, if I should attempt to mention on this page the names of all to whom I am under obligation. I desire at this time, however, to express my especial appreciation to M. Gautier, *Directeur de l'Enseignement secondaire*, M. Liard, *Vice-recteur de l'Académie de Paris*, M. Lyon, *Recteur de l'Académie de Lille*, M. Boirac, *Recteur de l'Académie de Dijon*, for authorizations to visit the schools within their jurisdictions; to my old friends M. Dr. Philippe, *Chef des travaux au Laboratoire de psychologie physiologique de la Sorbonne*, and M. Picavet, *Secrétaire du Collège de France, et Rédacteur en chef de la Revue internationale de l'enseignement*, the former for valuable material on the recent developments in gymnastic instruction, and the latter for many helpful suggestions, and much good counsel as to schools to visit, to say nothing of numerous personal letters that constantly smoothed the way. I am further under obligation to Dr. Benedict, my colleague at the University of Texas, for much patient reading of manuscript. Finally, the sane counsel, wise judgment, and indefatigable aid of my wife have been a perennial source of encouragement and inspiration.

FREDERIC ERNEST FARRINGTON.

AUSTIN, TEXAS, October 1, 1909.

PREFACE TO THE SECOND EDITION

THIS new edition of *French Secondary Schools* affords opportunity for correcting a few errors which have come to the author's attention. Although the program now in force differs in some particulars from that represented by the reform of 1902, the fundamental principles of that sweeping reform have stood the test of experience. Inasmuch as these were set forth with considerable detail in the original text, it has seemed best to leave those pages untouched and to give in a new appendix the complete program which went into effect in October, 1913. The few insignificant modifications in the program of the girls' schools have been incorporated in the body of the work. Here also are to be found the important changes in salary schedule, fees in boys' schools, and subjects of the baccalaureate examination, as well as other changes of less moment.

FREDERIC ERNEST FARRINGTON.

NEW YORK CITY, June 25, 1915.

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NOTE

The following abbreviations are used in the footnotes and in the bibliography:

Bull. adm. for Bulletin administratif du Ministère de l'instruction publique et des Beaux-Arts.

Circ. for Circulaires et instructions officielles relatives a l'instruction publique.

Enquête for Enquête sur l'enseignement secondaire. The report of the Ribot Commission.

Rep. Com. Ed. for Report of the United States Commissioner of Education.

FRENCH SECONDARY SCHOOLS

CHAPTER I

THE FIRST REVIVAL OF LEARNING

THE meeting of Charles the Great and Alcuin at Parma in the spring of 781 was one of those events in history, which, however unimportant they may appear at the moment, seem fraught with significance when viewed in the light of subsequent developments. These two men standing as they did for the highest attainment in Western Europe, the one of the temporal power, and the other of the intellectual life, were no strangers to each other, for they had met in a neighboring city some years before. Doubtless during the intervening time the powerful king had heard of the rise of that young Saxon with only less interest than the latter had followed the strenuous career of the Frankish monarch. It was at the time of this second meeting in the Italian city that Charles formally invited Alcuin to come to the Frankland to teach. After the death of Ælbert, Alcuin had gone to Rome in accordance with the wish of his former teacher to receive from the Pope the pallium for Eanbald whom the old archbishop had previously selected as his successor. Not only did the invitation of Charles furnish a welcome opportunity for relief from the troublous times that portended no peace for the people of Britain, but further, Alcuin, then in the full vigor of ripe middle life, felt it the call of duty to cross the channel. He delayed only long enough to return to York to obtain permission from his archbishop and his king, and to attend to some business

Charles Invites Alcuin to Aachen.

matters at home, for although neither then nor afterwards was he ever a monk,[1] he was already *scholasticus*, or master of the cathedral school at York and was also in charge of the cathedral library there. Thence in the next year he set sail for the continent, in company with some of his chosen friends, to take charge of the palace school at Aachen.

Charles's Learning.

Charles the Great was already somewhat in touch with the learning of the time, but what he had been able to obtain from Peter of Pisa and Paulus Diaconus served only to stimulate his desires for more. Up to this time, however, his book learning, such as it was, had been chiefly limited to grammar. The rest of the *trivium* and the greater part of the arithmetic that he acquired came from Alcuin, while for the other subjects of the *quadrivium* he was subsequently indebted to Alcuin's successor, the more scientifically inclined Clement of Ireland.[2] So when Charles, in this year 781, in one of the few peaceful intervals of his stormy career, met this Saxon scholar who he thought could satisfy his desire for knowledge, he was quick to seize the opportunity and invite him to his court.

Condition of Learning in Gaul.

At that time in Gaul, learning had fallen upon evil days. Although under the old Roman Empire there had been many schools, now all was changed; internal strife, foreign invasion, "the distribution of the monasteries that Charles Martel had made among his warriors had given the last blow to the schools of the Gauls."[3] The great municipal schools that had flourished at Trèves, at Bordeaux, and at numerous other cities, had passed away,[4] and what little instruction there remained was carried on by the ecclesiastical schools. The sum total of

[1] He was ordained a deacon at York. WEST, *Alcuin*, p. 64.

[2] MULLINGER, *The schools of Charles the Great*, pp. 70, 121.

[3] MONNIER, *Alcuin et Charlemagne*, p. 34.

[4] GUIZOT, *Histoire de la civilisation en France depuis la chute de l'empire romain*, II., p. 2. For list of the most important episcopal schools from the sixth to the middle of the eighth century, see *id.*, p. 4.

all the subjects taught at these schools is comprehended in the phrase "the seven liberal arts;" the *trivium*, including grammar, rhetoric, and dialectic, and the *quadrivium*, arithmetic, astronomy, geometry, and music.[1] But these subjects had sunk nearly to the level of crass utilitarianism, and in the main they were studied only just enough to sustain the intellectual life of the church. Charles himself in one of his capitularies bears witness to the low condition of learning: "Desirous as we are of improving the condition of the churches, we impose upon ourselves the task of reviving, with the utmost zeal, the study of letters, well nigh extinguished through the neglect of our ancestors. We charge all our subjects, as far as they may be able, to cultivate the liberal arts, and we set them the example. We have already, God helping, carefully corrected the books of the Old and New Testaments, corrupted through the ignorance of transcribers."[2] The passing of these former schools marked too the passing of literature. "Not only did the literature become entirely religious, but the religious even ceased to be literature."[3]

In Britain and Ireland.

At that very time learning in Ireland and Britain was considerably in advance of that on the continent. Christianity had been carried to Ireland by Greek missionaries, and to Britain by Roman. It was these two countries that guarded the sparks of intellectual life and kept them aglow to rekindle the sacred fires in Gaul. Of all the schools of England, that at York was by far the most famous, not only for its teachers, but what was of more importance still, for its library, for in the list of books given by Alcuin himself[4] one finds practically all the text-books of the time enumerated. It is quite natural, then, that Charles should have had his

[1] For a good account of the development of the seven liberal arts, see DAVIDSON, *Aristotle*, Appendix; and WEST, *Alcuin*, ch. I.

[2] BALUZE, *Capitularia regum Francorum*, I., 204–5, quoted in MULLINGER, *op. cit.*, p. 101.

[3] GUIZOT, *op. cit.*, II., p. 6.

[4] Quoted in MULLINGER, *op. cit.*, pp. 60–61, note.

attention directed toward York, and when he cast about for teachers to satisfy his desire for learning that he should have been attracted by the renown of the *scholasticus* of that famous school. The meeting at Parma gave him the opportunity he wanted, and he was not slow to offer Alcuin the position of master of the palace school. Early in 782 the Saxon teacher was installed in his new place.

The Palace School and its Pupils.

This palace school was in no sense a public school, but seems to have been intended exclusively for the king and his court. Among its pupils we find Charles himself, his three sons, his wife, his daughters, his sisters, Einhard, subsequently his biographer, and a few others.[1] Although nominally situated at Aachen, the school was a kind of peripatetic institution, for it followed the wanderings of the court, now at Worms, now at Mayence, now at Frankfort, now at Ratisbon.[2] In fact, this migratory characteristic seems to settle the question that it could not have been a higher school in any kind of national educational system. Subsequently the school appears to have increased considerably in numbers, for we find that a greater part of its pupils obtained positions of responsibility as ambassadors, archbishops, and *missi dominici*.[3]

Subjects of Instruction.

Alcuin's task was by no means an easy one, for he had to adapt his teaching to pupils differing widely in age, attainments, and interests. It is rather likely, however, that whenever the king was present, his own needs in large measure determined the instruction for the others. Inasmuch as Alcuin never showed himself to be an independent thinker, the lessons of the palace school probably followed pretty closely the general character of his own instruction at York, naturally, however, with certain modifications to adapt them to the different nature of his pupils. One can readily imagine that the

[1] MONNIER, *op. cit.*, pp. 81–82.
[2] MULLINGER, *op. cit.*, p. 105.
[3] MONNIER, *op. cit.*, p. 135.

other members of the school as well as Charles himself wanted something more than instruction in reading Latin, in learning the church chants, or in acquiring facility in the computation of the church calendar. In this respect this school differed from any other with which Alcuin had ever been connected. At all events, the preparation for his new kind of teaching was often no slight task for him, master though he was of the traditional learning, for he himself testifies: "As soon as the ruddy charioteer of the dawn suffuses the liquid deep with the new light of day, the old man rubs the sleep of night from his eyes and leaps at once from his couch, running straightway into the fields of the ancients to pluck their flowers of correct speech and scatter them in sport before his boys."[1] So the intercourse of teacher and pupils undoubtedly redounded to the mutual profit of both.

"It is difficult to say," says Guizot,[2] "what was the object of these lessons. I am inclined to believe that Alcuin treated all sorts of subjects somewhat at random; that in this palace school there was rather more of conversation than of instruction, strictly speaking, and that its chief merit lay in the play of the mind, in the successive arousing and satisfying of the curiosity."

From a sentence in Monnier,[3] it looks as though Alcuin might have presented the seven liberal arts in succession to his pupils in the palace school. It is not unreasonable to suppose that the work thus laboriously prepared may have served as the basis of the treatises that have come down to us and that were written during the period of his abbacy at Tours.

A few lines[4] from a conversation carried on between

[1] MIGNE, *Patrologia Latina*, CI., p. 782. *Carmina* CCXXXI. Quoted in WEST, *op. cit.*, p. 47.

[2] GUIZOT, *op. cit.*, II., pp. 189–190.

[3] "Vers l'année 790, Alcuin, aprés avoir terminé son cours sur les sept arts, mettait à la voile pour la Grand Bretagne." MONNIER, *op. cit.*, p. 144, referring to ALCUIN, *Rhet.* Quoted from FROBEN, t. II., p. 313.

[4] GUIZOT, *op. cit.*, II., pp. 190–191.

Alcuin and Pepin, the second son of Charles, then about fifteen years old, will suffice to show something of the nature of the instruction, which as Mullinger points out "foreshadows the scholastic disputation."[1]

Pepin. "What is writing?"

Alcuin. "The guardian of history."

P. "What is speech?"

A. "The interpreter of the soul."

P. "What produces speech?"

A. "The tongue."

P. "What is the tongue?"

A. "The whip of the air."

P. "What is the air?"

A. "The preserver of life."

P. "What is life?"

A. "The joy of the happy, the sorrow of the unfortunate, the expectation of death."

Surely not a very advanced form of teaching, but interesting as showing the character of the instruction and the trend of thought of the period.[2]

Successful as the palace school was, nevertheless it was one of the less important of Alcuin's influences on Frankish culture. Strongly supported, if not actually urged on by Alcuin, Charles began to spread this intellectual leaven to the far corners of his domain. The famous capitulary of 787, "the first general charter of education for the Middle Ages," is the earliest and by far the most important of the royal decrees by which he tried to bring this to the attention of his people. It was addressed to all the bishops and the abbats throughout his possessions, and while returning thanks for the expressions of good feeling that he had received from them, nevertheless he kindly reproved them for their many uncouth phrases and exhorted them to improvement. He especially urged

Charles's Capitulary of 787.

[1] MULLINGER, *op. cit.*, p. 75.

[2] For more detailed account of the instruction in the palace school, see MONNIER, *op. cit.*, pp. 87–135.

that men should be chosen for interpretation of the Scriptures, "who are both able and willing to learn, and also desirous of instructing others."

The full text of this epoch-making document is as follows:[1]

"Charles, by the grace of God, King of the Franks and of the Lombards, and Patrician of the Romans, to Baugalf, abbat, and to his whole congregation and the faithful committed to his charge:

"Be it known to your devotion, pleasing to God, that in conjunction with our faithful we have judged it to be of utility that, in the bishoprics and monasteries committed by Christ's favour to our charge, care should be taken that there shall be not only a regular manner of life and one conformable to holy religion, but also the study of letters, each to teach and learn them according to his ability and the divine assistance. For even as due observance of the rule of the house tends to good morals, so zeal on the part of the teacher and the taught imparts order and grace to sentences; and those who seek to please God by living aright should also not neglect to please him by right speaking. It is written, 'by thine own words shalt thou be justified or condemned;' and although right doing be preferable to right speaking, yet must the knowledge of what is right precede right action. Everyone, therefore, should strive to understand what it is that he would fain accomplish; and this right understanding will be the sooner gained according as the utterances of the tongue are free from error. And if false speaking is to be shunned by all men, especially should it be shunned by those who have elected to be the servants of the truth. During past years we have often received letters from different monasteries informing us that at their sacred services the brethren offered up prayers on our behalf; and we have observed that the thoughts contained in these letters, though in themselves most just, were expressed in uncouth language, and while pious devotion dictated the sentiments, the unlettered tongue was unable to express them aright. Hence there has arisen in our minds the

The Great Capitulary of 787.

[1] MIGNE, *Patrologia Latina*, XCVIII., p. 895. Translated in MULLINGER, *op. cit.*, pp. 97–99.

fear lest, if the skill to write rightly were thus lacking, so too would the power of rightly comprehending the Sacred Scriptures be far less than was fitting; and we all know that though verbal errors be dangerous, errors of the understanding are yet more so. We exhort you, therefore, not only not to neglect the study of letters, but to apply yourselves thereto with perseverance and with that humility which is well pleasing to God; so that you may be able to penetrate with greater ease and certainty the mysteries of the Holy Scriptures. For as these contain images, tropes, and similar figures, it is impossible to doubt that the reader will arrive far more readily at the spiritual sense according as he is the better instructed in learning. Let there, therefore, be chosen for this work men who are both able and willing to learn, *and also desirous of instructing others;* and let them apply themselves to the work with a zeal equalling the earnestness with which we recommend it to them.

"It is our wish that you may be what it behooves the soldiers of the Church to be — religious in heart, learned in discourse, pure in act, eloquent in speech; so that all who approach your house in order to invoke the Divine Master or to behold the excellence of the religious life, may be edified in beholding you and instructed in hearing you discourse or chant, and may return home rendering thanks to God most High.

"Fail not, as thou regardest our favour, to send a copy of this letter to all thy suffragans and to all the monasteries; and let no monk go beyond his monastery to administer justice or to enter the assemblies and the voting-places. Adieu."

As to how carefully the commands of Charles were carried out, history unfortunately gives us no very satisfactory details. Charles himself, however, had already brought with him from Rome teachers of singing and arithmetic, and these were distributed among the various monasteries of the realm. At all events the king does not appear to have been satisfied entirely with the way in which his new plans were working out, for he issued other capitularies two years later containing more specific directions. In one of these he directed that the priesthood should be recruited "not only from among the servile class but also from among the sons

of freemen."[1] This is rather interesting as showing something of the disrepute into which the church had fallen, as well as the efforts of Charles to make it a more honorable calling.

"Let every monastery," says this same capitulary of 789, "and every abbey have its school, where boys may be taught the psalms, the system of musical notation, singing, arithmetic, and grammar; and let the books which are given them be free from faults, and let care be taken that the boys do not spoil them either when reading or writing."[2] This shows very clearly what Charles believed should be taught in these schools, but it also throws additional light on the decay of education even among the monasteries and abbeys, and furthermore echoes his dissatisfaction at the effect of his great capitulary.

Some years later in 797, Theodulfus, bishop of Orleans, issued a rather remarkable letter to his clergy. Although more limited in the scope of its influence than the great capitulary of ten years earlier, yet it is even more liberal in its provisions. He ordered all his clergy to open schools for their parishioners wherein the children of the faithful might receive free instruction.[3] This, as Mullinger points out, was probably the prototype of the modern free parochial school. Here again, what the exact results accomplished were we have no means of knowing. One writer[4] goes so far as to assert that the lower orders in France had more universal education at the end of the eighth century than they had in the first quarter of the nineteenth; while another maintains that they were

The Capitulary of Theodulfus.

[1] BALUZE, *Capitularia*, I., p. 237.

[2] *Ibid.* Quoted in MULLINGER, *op. cit.*, p. 102.

[3] "Presbyteri per villas et vicos scholas habeant, et si qui libet fidelium suos parvulos ad discendas litteras eis commendare vult, eos suscipere non renuant sed cum summa charitate eos doceant attendantes illud quod scriptum est. . . ." LABBEUS, *Concilia Galliae*, VII., p. 1140; quoted in MAÎTRE, *op. cit.*, p. 14, note.

[4] LORENZ, *Alcuins Leben*, p. 38.

probably of almost no account, but that "the attempt is worthy of note."[1]

Alcuin appointed Abbat of Tours.

The importance of Alcuin's influence upon education, however, is not limited to his direction of the palace school nor to his part in the issuance of the educational capitularies. His incumbency of the abbacy of Tours is of even greater significance, for the effect of his work there is more directly traceable through the remaining centuries that lead on to the founding of the University of Paris. One can readily imagine that Alcuin's life at the palace school could not have been altogether pleasant. It is hard enough to teach the children of royalty, but to have as a pupil one of the most powerful monarchs of his age who has already passed middle life, is far from an enviable position. Charles was indefatigable in his questions, and the poor Saxon master was often hard pressed for an answer. Alcuin began to long for release from this strenuous life. At length in 796 Charles gave in to his importunity and consented to have him give up his work. In token of his fourteen years of faithful service as teacher, counsellor, and ambassador, Charles rewarded him with the abbacy of St. Martin of Tours, one of the richest in the kingdom.

The Upbuilding of Tours.

The seclusion of the abbey undoubtedly furnished a welcome relief from the whirl of court life, and a court life whose laxness must often have shocked and grieved the churchman. But Alcuin's responsibility was even greater there than at Aachen. Ealbat of Tours was a kind of embryo feudal lord, for he was the master of twenty thousand serfs, and his farms stretched from Tours as far as Aachen.[2] Yet he took up his new task with all the zeal of his early life. He restored the Benedictine rule in all its severity, and reorganized the school, re-establishing instruction in all the seven arts, and even taking an active part in the teaching himself. He set

[1] GUIZOT, *op. cit.*, II., p. 216.
[2] MONNIER, *op. cit.*, p. 338.

himself early to the task of replenishing his library, and to that end besought Charles for leave to send some of his younger monks to England to bring back books from the treasures of his old library at York.[1] We have no means of knowing the extent of the obligation thus incurred by Tours, but we may reasonably infer that whatever of the books enumerated by Alcuin in his account of the library at York[2] were not already at Tours might subsequently have been found among the books of the latter monastery.

Alcuin's Reforms.

At all events, thanks to Alcuin's reforms, the fame of the monastery at Tours soon spread far and wide, and scholars were attracted there from all over the western world. Relieved from the necessity of adapting his teaching to the demands of men of the world, Alcuin contracted the scope of his instruction to the narrow limits prescribed for religious needs, and Virgil and other secular classic authors were put on a "forbidden list." The whole monastery breathed the spirit of thoughtful study and reflection. At this time all instruction was free, although some of Alcuin's successors allowed "sordid business considerations" to enter into their conduct of the abbey, for about 840 we find Archbishop Amalric setting aside certain property whose income should provide for re-establishing free instruction at Tours, and Charles the Bald confirming this in a capitulary.[3] Alcuin himself spent much time in looking after the work of his copyists, for he was especially anxious to restore the purity of the Latin language. But that Alcuin found time for more advanced instruction may be learned from the famous scholars that came to St. Martin's to profit by his teaching. By far the most illustrious of all these pupils (in fact his fame even surpasses that of his master) was Rabanus Maurus, subsequently abbat at Fulda,

[1] ALCUIN, *Epist.* XXXVIII., I., p. 52. Quoted in MONNIER, *op. cit.*, p. 260.

[2] See MULLINGER, *op. cit.*, pp. 60–61, note.

[3] MAÎTRE, *Les écoles épiscopales et monastiques de l'Occident depuis Charlemagne jusqu'à Philippe-Auguste*, pp. 49, 203.

one who zealously sought to carry on the ideals of his teacher.

Thenceforward learning seemed to flow in three parallel currents.[1] 1. At the east it centred around Fulda and the various monasteries dependent upon that parent institution. Thence came the influence that spread widely over Germany.[2] 2. At the west we find the group of schools that subsequently became merged into the University of Paris. 3. In the centre were the schools of Reichenau, St. Gall, Loubes, Liège, and Strasburg, which contributed in no small way in the eleventh century toward the development of the western group of schools.

Change of Policy at the Palace School.

After Alcuin went to Tours, Charles hesitated some time before appointing a new head for the palace school. His interest in astronomy had meanwhile been growing steadily, and Alcuin had never been able satisfactorily to answer the questions of his royal pupil, so it is not strange that the king's new teacher should be stronger in the subjects of the *quadrivium* than was his old master. The new head was Clement of Ireland. This appointment was a great surprise and grief to Alcuin, for not only was the emphasis of studies changed from the *trivium* to the *quadrivium*, but the Irish scholars represented the tradition and doctrine of the Egyptian school, and the change that this implies was of far more initial importance to the churchmen of those times than appears possible to us now who are looking back at that religious[3] strife over a period of more than eleven centuries. It was not until about a century later that these two schools were in a measure harmonized in the person of Remy of Auxerre, who taught at Rheims and at Paris.[4]

Lewis the Pious, the successor of Charles the Great, attempted to carry on the work of his father, for as one of

[1] MONNIER, *op. cit.*, p. 266.

[2] See RUSSELL, *German higher schools*, p. 10.

[3] For more detailed account, see MULLINGER, *op. cit.*, pp. 114–123; MONNIER, *op. cit.*, pp. 36–43, 136–142.

[4] MONNIER, *op. cit.*, p. 267.

Alcuin's pupils in the palace school he had become vitally interested in the intellectual life. We find him formally recognizing the existence of two languages in prescribing the translation of the Scriptures to the *lingua Teudisca*. At the same time we see lay education differentiating more and more from religious education, and the line of demarcation between the monastic and the episcopal schools becoming more and more distinct. The culture of the former was decidedly of a higher type than that of the latter, although one was in no sense a preparation for the other. The episcopal school was attached to the cathedral and was under the direct control of the bishop. It was destined to prepare the priests for the diocese. The acting head of the school seems to have been known as the *magister scholasticus*, or *capiscolus*.[1] It was he who read slowly in a droning voice the words that the boys laboriously wrote upon their tablets of wax. Only after these had been carefully revised by the master could they be copied upon the leaves of parchment. In this way each pupil probably wrote[2] most of the books he ever possessed.[3] Narrow utilitarianism was the dominant factor in outlining the work of the schools, for it probably seldom included more than the minimum requirements for the performance of the religious offices. Orleans and Rheims furnish the only striking exceptions to the general mediocrity of all these cathedral schools during the ninth century. These two schools under the direction of Theodolfus and Hincmar respectively represented distinctly a higher type

Monastic and Episcopal Schools.

[1] MAÎTRE, *op. cit.*, p. 184.

[2] This reminds one in general of the custom still pursued in some of the classes of the elementary schools where the words of the teacher dictated at the end of the lesson and copied by the pupils serve as their text-books. See the author's *French public primary school system*, p. 90. It is almost unnecessary to add that here the similarity between these schools ceases.

[3] See RABANUS MAURUS' words in MIGNE, CXII., 1600–1601:

> "Me quia quaecumque docuerunt ore magistri,
> Ne vaga mens perdat, cuncta dedi foliis."

MULLINGER, *op. cit.*, p. 131, note.

of education. Indeed, it was "the episcopal school at Rheims which . . . claims the proud distinction of having preserved, in this century (the ninth), that tradition of learning which links the episcopal schools with the University of Paris."[1]

Monastic Schools.

It is to the monastic schools throughout the period from Charles the Great to Philip Augustus, however, that we must look to find the real preservers of learning. Corbie, St. Riquier, St. Martin at Metz, St. Bertin, and Ferrières (one of the two abbeys bestowed upon Alcuin when he first came to the court of Charles) are among the most important of these. In 831 the library at St. Riquier possessed two hundred and fifty volumes, a very large number for that time when every book represented the arduous hand labor of days, and sometimes of months. Here, thanks to the severity of the Benedictine rule, not only was there much copying of books, but the monks zealously devoted themselves to the study of the liberal arts, the writings of the church fathers, and the Holy Scriptures themselves. Alcuin had posted in his copying room at Tours: "Later the copyist may himself become master. Then he may find new doctrines, and expound those of the ancients."[2]

Bishops' Petition, 829.

It is worthy of note in passing to refer to the petition of the bishops to the king in 829. They begged him to use his authority "to establish schools in the three most suitable places within his dominions in order that his father's work and his own might not come to naught."[3] Unfortunately the advent of civil war put an end to this project, and to most of the other reforms that Lewis the Pious had undertaken.

From this time on well nigh to the beginning of the University of Paris, we have to seek for intellectual attainment in the scattered monasteries where abbats and monks devoted

[1] MULLINGER, *op. cit.*, p. 132.
[2] Quoted, MONNIER, *op. cit.*, pp. 263–264.
[3] Quoted, MAÎTRE, *op. cit.*, pp. 25–26.

to the cause of learning still cherished the ideals that Alcuin had brought to Frankland. This influence is directly traceable down to Odo of Cluny, but with his death in 940 its last vestige fades away in the gathering gloom that enshrouds the greater part of the tenth century. Perchance its tradition still persisted, and like a sunken river it flowed steadily along, coming to the surface again in Drago, John the Deaf, and Roscellinus. Such was the first revival of learning in Western Europe that emanated from Alcuin and "Europe's lofty beacon," as the Saxon teacher once admiringly called Charles the Great.

CHAPTER II

THE SECOND REVIVAL OF LEARNING. SCHOLASTICISM

"AMPÈRE recognized three revivals of learning in France: the first dates from Charlemagne; the second falls at the end of the eleventh century; the last is the great Renaissance of the fifteenth and sixteenth centuries." [1] It is the period of this second revival of learning, commonly known as the period of scholasticism, that now concerns us, and the significance of this whole movement centres around the fact that it marks the founding of our modern universities.

Three Revivals of Learning in France.

The former monastic and cathedral schools still dragged on a more or less precarious existence. Almost like a flash in the pan some one of them would become famous, but its repute was only ephemeral, and it soon dropped back into a position of mediocrity. The renown of any particular school was dependent upon the brilliancy of the individual head; hence it failed to exercise any continuous influence on the intellectual development of the nation as a whole. The system thus had no intrinsic worth of its own. After the fatalistic notion of the *dies irae* had passed away, and people awoke to the full realization of the fact that the world was still as intact as ever, they seemed infused with new life. One expression of this regeneration worked itself out in the zeal for organization. This is the period of expansion, of the crusades to the east, of the rise of the guilds in the west, of the growth of independent communes in France and Italy. Apply this

Tendencies of the Times.

[1] MAÎTRE, *Les écoles épiscopales et monastiques de l'Occident*, p. 141.

same development to the intellectual world, and we have the community of learned men, the university.

In the eleventh century the cathedral school at Paris was no more and no less than an ordinary church school, merely a type of the sort of institution that had already been in existence for centuries. It was perhaps a little more prominent on account of its being situated at the capital city, but the Paris of those days did not hold the same relative position in the minds of the people that it holds to-day; in fact, on more than one occasion it had been forced to acknowledge the supremacy of Rheims, Laon, or Bec in the intellectual world. From the advent of William of Champeaux, however, there was a permanent change. He began to draw pupils from afar, and thither in the very first years of the twelfth century was attracted that young Breton, "the first of French philosophers in the order of time, and by the intellectual movement which he determined, the precursor of Ramus and Descartes, in other words, of the Renaissance and the modern spirit."[1] This man was Peter Abelard.

Paris as a Centre of Learning.

After attending the school of William of Champeaux for a brief period, Abelard's independent spirit refused longer to brook the domain of traditional learning, so he determined to break with his teacher and open a school of his own. A contemporary writer of the twelfth century, Guillaume de Conches, suggests that this action of Abelard's may have been typical of the time. "Our students," said he, "have renounced the Pythagorean system which required seven years of listening and thinking, and did not allow one to question the master before the eighth year. To-day, when he is barely inside the door and before he has taken his seat, the pupil questions his master, and what is worse, judges him."[2] Abelard taught at Melun and at Corbeil, and finally moved on the very camp of the enemy by establishing a school on the slope of Mount Ste. Geneviève itself, not far from the present precincts of

Abelard's Learning.

[1] COMPAYRÉ, *Abelard*, p. 23.

[2] Quoted in THÉRY, *Histoire de l'éducation en France*, I., p. 298.

the university. There were already schools on the northern reaches of that height that were openly competing with the cathedral school in the city, but Abelard's quickly overshadowed all the others. William of Champeaux was soon forced to give up his position in the cloistral school, and after a brief interval Abelard was installed in the place of his former teacher. This was really the summit of his career, and he continued to teach theology and dialectic there for four or five years. Vainglorious and boastful though he was, such was the brilliancy of his intellect and the power of his argument that he attracted students from far and near, and Paris became more than ever the intellectual Mecca, "a source of living water, another Athens." It was during this period that Abelard is said to have counted among his pupils twenty cardinals and more than fifty bishops and archbishops.[1] The virility in his teaching lay in the fact that he replaced the old *trivium*[2] by pure philosophy and advanced theology, contending chiefly for the dominance of the reason as opposed to tradition. "Scholasticism had begun before Abelard, but it was he who gave movement and life to the method by lending it his power and his renown. It was he above all who erected it into a principle and gave it a general application."[3]

Thus in this teaching of Abelard do we find the germs of the university, but these did not develop to a recognizable form until more than sixty years after his death. Abelard was the forerunner rather than the founder of the University of Paris, for we have no evidence for supposing he ever had the

Abelard, the Forerunner of the University.

[1] CRÉVIER, *Histoire de l'Université de Paris*, I., p. 171.

[2] For an interesting discussion as to Abelard's knowledge of mathematics, see *Ouvrages inédits d'Abélard, publiés par* VICTOR COUSIN, Introduction, p. xliv. "It is certain then that Abelard was entirely lacking in mathematical knowledge." Also in CRÉVIER, *op. cit.*, I., p. 221: "Although John of Salisbury testifies to have had a smattering of mathematics, it does not seem to have been studied in the twelfth century as much as in the time of Alcuin, and in the centuries immediately following him."

[3] COMPAYRÉ, *op. cit.*, p. 19.

remotest conception of an organization like even the university of the thirteenth century. Abelard, however, was one of the first exponents of that desire for teaching, that necessity for individual expression, in a word for the *Lehrfreiheit*, that has dominated the universities since his day. "He was a man who by his merits and his defects, by the audacity of his opinions, the brilliancy of his career, his innate passion for controversy, and his rare talent for teaching, contributed most to increase and expand the taste for study and that intellectual movement whence issued the University of Paris in the thirteenth century."[1]

The impetus given to learning by Abelard was quickly noticeable, for in the last half of the century Paris was full of schools and teachers. The work in the more elementary of these schools was doubtless similar to that described by John of Salisbury who came to Paris about 1135 and for a brief period sat under Abelard's teaching.

Method of Grammar Teaching in the Twelfth Century.

"The teacher explained the authors, accustoming his pupils to apply the rules to the text. He pointed out the oratorical turns and the subtleties in the art of persuasion. He noted the fitness of the terms and the metaphorical expressions, the order and arrangement of the different parts of the subject; what attention should be paid to the choice of words and thoughts; how the style ought to vary according to the subject-matter. He carefully trained his pupils' memory, requiring them to recite to him the finest selections from the historians, the poets, and the orators, which he had explained to them. He had them reproduce exactly what they had heard (that is, what he had told them). He encouraged them to read for themselves, particularly in the great authors. He wanted them to write both prose and verse every day, and he started conferences wherein they discussed questions among themselves."[2]

[1] *Ouvrages inédits d'Abélard, publiés par* VICTOR COUSIN, Introduction, p. 1.

[2] KILIAN, *Tableau historique de l'instruction secondaire en France*, p. 7.

The instruction in the ecclesiastical schools of that time was for the most part free. In fact, William of Champeaux is said to have taught philosophy publicly and gratuitously in a faubourg of Paris, where he laid the foundations of the abbey of St. Victor in 1108.[1] But it is inconceivable that all the schools that were springing up on Mount Ste. Geneviève could have been free. Fired with the zeal for self-expression though those teachers were, so much so in fact that they seemed to be learners one day and teachers the next, yet they must have gained a livelihood in some way. The teaching profession then could not have been entirely bereft of pecuniary reward, for Abelard himself declared that "poverty forced him to reopen a school."[2] What the fees were we have no means of knowing, but in his case they must have amounted to considerable, for this school of the *Paraclete* was fairly thronged with students, and formerly at his lectures in Paris he had been known to have as many as three thousand auditors.

Fees for Instruction.

In Abelard's time the *Lehrfreiheit* was less restricted than in the succeeding years. The ease with which he opened his school and gathered about him his hundreds of eager disciples is an indication of the existing conditions. But the misfortunes of his later years are well known: how he was driven about from place to place; haled before an ecclesiastical council at Soissons and forced to burn his books with his own hand (a punishment of no small moment in those days when the writing of a book was such a laborious affair); and even imprisoned in a monastery. Toward the middle of the twelfth century, this right to teach was considerably abridged, and as one Catholic writer expressed it, "the Church, justly alarmed by the reprehensible undertakings of certain imprudent doctors, exercised its right, and began to demand the *license*."[3] As formally established by the Council of Latran

Lehrfreiheit and the License.

[1] THÉRY, *op. cit.*, I., p. 255.

[2] *Ibid.*, p. 273.

[3] RIANCEY, *Histoire de l'instruction publique et de la liberté de l'enseignement en France*, I., pp. 188–189.

in 1179, this signified merely a permission to teach, *licentia docendi.* Since this authorization had to be obtained from the bishop or some other accredited authority, the church was thus in possession of a kind of brake that could be applied to the intellectual forces when the centrifugal movement seemed likely to become dangerously strong. In Paris the chancellor of the cathedral was invested with the power of granting the license. He was sworn to grant it only to "capable" individuals, but unfortunately we have no means of defining the limitations of this term. At all events it was intended merely to safeguard the rights of the church, and at the time of its inception was applied essentially to the field of theology, although in the next century this was extended over the arts work as well. Hence the origin of the degree granting power of the chancellor.

Meanwhile the schools on Mount Ste. Geneviève became more and more numerous as the century rolled along; they drifted farther and farther away from direct control of the cathedral authorities, although two thirds of them were taught by ecclesiastics; the study of dialectic absorbed all their interest almost to the exclusion of the old subjects, and they carried it to ridiculous extremes, so that John of Salisbury was moved to exclaim: "The masters of our day, in order to parade their own knowledge, accustom their auditors not to understand them, and they imagine that Minerva has placed all her secrets on inaccessible heights. . . . First they tax immoderately the feeble comprehension of their hearers; then they throw the natural order of ideas into confusion and make a special effort to turn things topsy turvy. I might almost say they put the cart before the horse; then they seem to study how to contradict the thought even of the author they are explaining."[1] The schools were drawn closer and closer together through a community of interest until the ties of the intellectual life became stronger than

Tendencies of the Schools and the Teachers.

[1] Quoted in THÉRY, *op. cit.*, I., pp. 285–286.

any racial antipathies that may have existed, and we find the cosmopolitan groups of teachers and students in the embryo nations making common cause against the common enemy—the Parisian populace. In 1200 Philip Augustus took the part of the students against the provost of the city and granted them the right of trial before the episcopal instead of the civil court, a privilege that M. Compayré has said "may be considered as the first official charter of the University of Paris."[1] During the next fifteen years a series of bulls issued by Innocent III. recognized the masters and students of Paris as a corporation with all the rights and privileges belonging thereto within the meaning of the Roman law, strengthened their position in their contests with the chancellor, and formally forbade the latter to withhold the license from anybody that the masters recommended to him.[2]

Thus the organization subsequently known as the University of Paris came into existence. Originally composed of the masters of the different schools, or rather of the four disciplines,[3] the university later differentiated itself into faculties and nations. It was not until about the middle of the thirteenth century that this nomenclature assumed its modern connotation.[4] At that time the clear-cut distinction between the faculties is plainly shown by a letter of Alexander IV., wherein he threatens the arts students and their rectors with excommunication unless they stop interfering in the affairs of the theological faculty.[5]

Organization of the University.

Almost from the first the arts faculty necessarily took a subordinate position with reference to the others. In fact, it was naturally looked upon as preparatory to theology, law

[1] COMPAYRÉ, *op. cit.*, p. 78.

[2] DENIFLE ET CHATELAIN, *Chartularium Universitatis Parisiensis*, I., p. 62 *et seq.*

[3] DENIFLE, *Die Entstehung der Universitäten des Mittelalters bis* 1400, p. 69.

[4] *Ibid.*, pp. 71–72, 106.

[5] DENIFLE ET CHATELAIN, *op. cit.*, p. 388.

(canon), and medicine. Nevertheless, in so far as dialectics and philosophy formed a part of the subject-matter, these arts schools certainly came within the scope of what is now known as superior instruction. But on the other hand, as the instruction dealt with the ordinary grammar, rhetoric, and mathematics (and undoubtedly there was much of this elementary work), they belonged to the middle part of the present secondary course. Their students were allowed to enter younger and younger, and in place of Abelard's lectures for the comprehension of men, we find the lessons adapted to youths of fourteen or even less. If the student had learned to read and write (of course in Latin), and had mastered the elements of Latin grammar, he was deemed competent to begin the study of logic, and was consequently eligible for the university. The sole other condition of admission seems to have been that the young student should attach himself to some master,[1] who was thus in a measure responsible for him. It appeared later that one of the functions of this master was to claim his young charge at the provost's when he fell into the toils of the law.[2] When one considers the youth of many of these students, the wisdom of this precaution immediately becomes apparent. In fact, throughout most of the early years there was constant strife between town and gown, and this friction was the immediate cause of many of the early privileges granted by the kings. The crowd of students brought too much revenue to the city and nation for the king to treat them with disdain, and so for the first years at least the university could almost always count on the royal support.

The Arts Faculty and the Secondary Character of its Work.

Let us pause for a moment and see what these mediæval students were studying in this University of Paris. The earliest curriculum is that outlined by Robert de Courçon in 1215.[3] This practically confines the work of the ordinary

[1] Nullus sit scholaris Parisius, qui certum magistrum non habeat. *Statute of Robert de Courçon*, 1215, DENIFLE ET CHATELAIN, *op. cit.*, I., p. 79.

[2] THUROT, *op. cit.*, p. 38.

[3] "Et quod legant libros Aristotelis de dialectica tam de veteri quam de

courses to certain parts of Aristotle's logic (in either the version of Porphyry or Boethius), some other works of Boethius, and the whole of Priscian's grammar. For the extraordinary courses (which could be given only on holidays) we find the fourth book of Boethius's *Topics*, Donatus's *De Barbarismo*, Aristotle's *Ethics*, and the subjects of the *quadrivium*. Aristotle's *Metaphysics*, and *Natural Philosophy*, together with the writings of certain specified heretics, were strictly excluded from all courses. Save for some rather unimportant revisions, this remained substantially the program until the advent of the Renaissance.

First Curriculum of the Arts Faculty.

It was during this early period that we find the beginnings of our modern degrees. Mr. Laurie has aptly traced the parallelism between the degree process in the guild of arts and the mastership in the guild of the crafts. This is merely carrying out further the analogy already pointed out in suggesting that the university and the guild were both the evolution of a common feeling — the need for organization. The lowest degree, subsequently called the baccalaureate, was for a long time known as the *determinance*. It was formally established in 1275[1] and remained practically the same until toward the end of the fourteenth century. A candidate must be at least fourteen years old and must have studied logic for two years at Paris or have had equivalent work at another university. The examination consisted of three parts: (1) a disputation before his master and his classmates some time before Christmas; (2) an examination shortly afterward conducted by a special examining board of the nation; and (3) a public disputation in Lent. This determinance, then, concerned only the nations of the faculty of arts (although it was subse-

Degrees: The Baccalaureate.

nova in scolis ordinarie et non ad cursum. Legant etiam in scolis ordinarie duos Priscianos ad alterum ad minus. . . . Non legantur libri Aristotelis de *methafisica et de naturale philosophia*, nec *summe* de eisdem. . . . " DENIFLE ET CHATELAIN, *op. cit.*, I., pp. 78–79. See also *id.*, pp. 228, 278.

[1] DENIFLE ET CHATELAIN, *op. cit.*, p. 531.

quently adopted by the other faculties), and there were minor differences of procedure among the various nations. The name "baccalaureate" was not applied until the fifteenth century.

As we have already seen, the *licence* or permission to teach antedates by many years the corporate existence of the university. Originally it was granted solely on the initiative and at the pleasure of the Chancellor of the Cathedral. By the year 1213[1] he could not refuse the license to any candidate whom a committee of the masters declared worthy, although even then this question of worth was not altogether beyond the control of the chancellor, for he appointed three of the six masters that composed the commission. This necessarily presupposes that there was some sort of an examination, else how could this committee inform itself sufficiently about the merit of the candidate to recommend him for the distinction? Sometime before the year 1255 the Chancellor of the Cathedral had further been compelled to share his power of granting the license with the Chancellor of Ste. Geneviève, for in that year Alexander IV. issued two bulls, one to the Chancellor of the Cathedral and the other to the Chancellor of Ste. Geneviève, couched in identical terms with reference to the granting of the license. It is interesting to note that the second of these is the first document in the archives of the university that makes mention of the latter officer.[2] "The candidate had to swear that he was twenty-one years old, was not married, that he had passed his determinance at Paris or at some other university that had at least twelve regents, that he had sustained at least two public disputations before several masters in the rue de Fouarre,[3] and that he had studied in the faculty of arts at Paris for three years. The time spent on grammar was not to be counted in these three years.[4] These

The License and Mastership.

[1] DENIFLE ET CHATELAIN, *op. cit.*, I., p. 531.

[2] *Ibid.*, p. 299.

[3] A street in the Latin Quarter just across the south branch of the Seine from Notre Dame. Most of the arts work of the university was given here.

[4] THUROT, *op. cit.*, p. 52.

conditions were subsequently considerably modified, but they included the most important provisions which prevailed about the middle of the first century of the university's existence. To become master of arts it was only necessary for the licentiate to be received formally into the corporation of masters. The two essential features of this ceremony seemed to be that the candidate should take a solemn oath of allegiance and obedience to the statutes of the university, the faculty, and the nation, and that he should furnish a banquet to his fellow masters. After an elaborate ceremonial he was thenceforth a full-fledged teacher of the university. The mastership was the highest title of the arts faculty, for it was not until long afterward that the doctorate came into vogue in that faculty.

Growth of Colleges.

In the meantime various colleges had been springing up in Paris. According to Vallet de Viriville,[1] three were founded before the end of the twelfth century, eighteen during the thirteenth, and forty during the fourteenth.[2] But these earliest institutions did not correspond at all to our present notions of a college. They were practically no more than boarding-houses, each with a resident master who conducted his charges to the public schools in the rue du Fouarre,[3] or in the case of older students the colleges were a kind of scholarship foundation for prospective ecclesiastics. It was not until after the middle of the thirteenth century, 1257,[4] that Robert Sorbon established the first college for lay students in theology. These colleges, then, intended originally for students from the same district, province, or nation, owed their foundation to public munificence, private benefaction, or as was true in the case of Sorbon and others, to a combination of the two. A house was bought or built, a fund set aside for its maintenance, a few poor scholars gathered together, and the col-

[1] VALLET DE VIRIVILLE, *Histoire de l'instruction en Europe et principalement en France*, p. 166, note.

[2] For partial list of these, see Appendix C.

[3] CREVIER, *op. cit.*, I., pp. 271–272.

[4] DENIFLE ET CHATELAIN, *op. cit.*, I., p. 349.

lege opened its doors. As time went on and more and more of the younger students were gathered in the boarding-houses, or *pédagogies*, as they were called, it seemed more convenient to keep these youngsters in their *pensionnats* and teach them there, than to conduct them to the public schools in the rue du Fouarre. The result was that these latter schools became less and less popular, and finally went out of existence altogether. Then we find the elementary stages of the French secondary school as it exists in the lycées and colleges to-day. Harcourt, the present lycée Saint-Louis (1280), Montaigne (1314), and many others, however, were apparently founded as pure secondary schools,[1] while some, like Navarre (1304), had students of both grades. The establishment of these colleges simplified the disciplinary problems of the arts faculty in no small degree, but the fundamental principle of student control had been diametrically changed. The condition of almost absolute license was replaced by one of cloistral repression, and this same notion still prevails in many of the French schools to-day.

The "Grammar" Schools.

During all this period the church was still chiefly responsible for teaching the elements of learning through the monastic and cathedral schools. Each cathedral had its school where it taught not only the boys who were destined for the clergy, but also the choir boys who assisted in the church services. In the case of the cathedral school at Paris these latter had two masters, one for music, and the other for grammar, whence it happened that the *grand chantre*, or precentor, was put in charge of the instruction of the lay pupils, so to speak.[2] As the city expanded and schools were set up in the other parishes, the jurisdiction of the precentor was extended over them all. Eventually we find the Chancellor of the Cathedral at the head of the university instruction, and the precentor at the head of the lower instruction (for at that time there was no distinction between secondary and

[1] COMPAYRÉ, *op. cit.*, p. 194.

[2] JOLY, *Traitté historique des écoles épiscopales et ecclésiastiques*, p. 238.

elementary schools). Such was the power of the precentor that without his authorization nobody could open a school outside the colleges of the university, that is, a "grammar" school.[1] It was to these schools, then, that the scholars (scholarship holders) of the earlier colleges were sent for their elementary instruction in grammar and the other subjects until they were ready for philosophy.[2] The curriculum[3] of these parish schools was limited to reading, writing, grammar, a little church reckoning, and church music. It is almost unnecessary to observe that this instruction was all in the Latin language. The grammar of those days embraced all that we understand by the word to-day together with the reading and interpretation of the poets, or in other words, literature. The curriculum of some of these grammar schools was gradually advanced until it also included the ordinary rhetoric of the time, which was chiefly confined to the formulas of letter writing; the elements of arithmetic, then known as algorism; and some very elementary work in logic based upon the *Summulae* of Peter of Spain. It can readily be seen that this presented considerably more difficulty than it would to-day, for the pupils copied all their own books themselves and then committed them to memory verbatim even before they could understand the subject-matter. In any case, it was all completed by the time the boys were twelve or thirteen years of age, when they were ready for the logic of the arts faculty of the university. Gerson, in the regulations he drew up for the cathedral school at Paris, gives us some notion of the discipline there as well as in the pedagogies.[4] Each pupil was supposed to act as a monitor over his comrades and to denounce them

[1] JOLY, *op. cit.*, p. 304. As late as 1678, the precentor was having trouble with various individuals who were teaching without this authorization on the ground that they were teaching "literature and foreign languages," p. 495 *et seq.*

[2] *Ibid.*, p. 267.

[3] THUROT, *op. cit.*, pp. 93–94.

[4] GERSON, *Opera* IV., pp. 717–720, trans. in KUNZ, *Pädagogische Schriften von Johannes Gersons*, p. 146.

for violations of the rules of conduct, such as speaking French, swearing, lying, rising late, talking in church. Whoever failed to denounce his fellow was subject to the same punishment as the malefactor. The whip seems to have been the favorite instrument of punishment. In fact, one writer facetiously observes: "As regards discipline, the whips of the fifteenth century were twice as long as those of the fourteenth; . . . the whip has driven ignorance from the four corners of Europe."[1]

Ancient Institutions and Modern Counterparts.

Such in general, then, was the contribution of scholasticism to practical education — nothing that could really be called a system of education save perhaps in the higher field. The universities had come into being; they had rapidly advanced in power, privileges, and position; they had displaced forever the episcopal and monastic schools as centres of general learning, and these latter classes of schools "were completely effaced from the scene of history."[2] Their descendants, however, the parish schools, continued for long afterward to provide the youth with the elements of learning. The field of secondary education was covered in part by these schools, and in part by the arts faculty of the university, first through its own courses in the rue du Fouarre, and later through the instruction given in the colleges and *pensionnats*, where by the end of the fifteenth century the greater part of the arts regents were teaching.[3] The certification of teachers had already begun in the license of the chancellor, and the reform of Cardinal d'Estouteville in 1452 marks the beginning of the present system of inspection. At that time he ordered the faculty of arts each year to choose four masters from each nation to inspect the colleges and pedagogies and to reform therein whatever they found amiss in morals, food, instruction, administration, or scholastic discipline in general.[4] So, too, during this period

[1] MONTEIL, *Histoire des Français des divers états*, II., p. 308.
[2] MAÎTRE, *op. cit.*, p. 170.
[3] THÉRY, *op. cit.*, I., p. 391.
[4] DENIFLE ET CHATELAIN, *op. cit.*. IV., p. 725.

we see the colleges beginning what is to-day the traditional secondary instruction in grammar, rhetoric, and philosophy. Finally, we find an explanation of the present system of the French lycées, for as a French educator has expressed it: "The universities had made a great experiment in the day school for students of all ages. And it must be thoroughly recognized that this experiment, which people seem to wish to renew in our day, has failed, since the Middle Ages, as they were ending, turned into another path, and even replaced by the strictest sort of discipline the liberty of other days." [1]

[1] COMPAYRÉ, *op. cit.*, p. 197.

CHAPTER III

THE RENAISSANCE TO THE REVOLUTION

THE fifteenth century marks one of the great epochs in world history, for it chronicles the differentiation between the old days and the new, between the Middle Ages and the modern times. This distinction is even more striking in the domain of the intellectual life than in the political world. In the former, scholasticism had been the dominant power for well nigh three hundred and fifty years. Received with great acclaim at first, for it had been a potent force in dispelling the gloom of the dark ages, it had expanded and developed far beyond the point where it had anything vital to contribute to the world's betterment. It was now no more than a desiccated body with the substance absorbed by the most barren formalism. The emancipation from this formalistic domination is one of the debts the world owes to Italy, for she had been the first to feel the invigoration of the new life, and thence it had been transmitted to all the world. The fall of Constantinople, the invention of printing, and the discovery of the new world, grouped within a comparatively brief period, each had its share in disseminating the new knowledge. Without the assistance of these great factors the Renaissance might have been born and have perished within the narrow limits of the Italian peninsula.

The Renaissance.

Of all the countries of Western Europe, France was one of the last to feel the inspiration of the new movement, perhaps because the old scholasticism kept such a tenacious hold on the University of Paris, the centre of its intellectual being, perhaps because the frozen Alps formed a non-

conducting medium between the warm life of the south land and the hardly less impulsive nature of its Latin neighbor on the north. At all events, the movement was well under way in both Germany and the Netherlands before France felt the impulse. It was the expedition of Charles VIII. in the last decade of the fifteenth century that first attracted France definitely toward Italy. At that time the French king acquired or appropriated everything portable that fancy prompted and sent it all to his chateau at Amboise. Thus "Italy conquered the French from the day they penetrated there, and held them by a thousand delicate ties."[1] The years following mark the very culmination of the Renaissance in Italy. Raphael, Leonardo da Vinci, Michael Angelo, Titian, Andrea del Sarto, Machiavelli, Ariosto, were at the very flood tide of their renown. This was the era of individual achievement, of intellectual emancipation, of a real re-birth as contrasted with the tendency toward organization, toward concerted movement, toward mere resuscitation of the past that had formed the dominant note of the scholastic period. Although France turned toward the new life, she did not do so entirely in a whole-souled manner; the middle class showed a characteristic reluctance to accept innovations and clung tenaciously to the old traditions; the universities and colleges[2] did not willingly surrender their old methods which scholasticism had so long dictated. Besides, too, after the heretical doctrines of Luther began to spread abroad every humanist was more or less an object of suspicion.

Etienne Dolet, "the martyr of the Renaissance," gives a vivid contemporary account of the spread of the new ideas over Europe:[3]

[1] LEMONNIER, in LAVISSE, *Histoire de France*, V., 1, p. 159.

[2] By 1500 there were fifteen universities in France, and in Paris alone between forty and fifty colleges. See Appendix D for list of these institutions.

[3] Commentariorum linguae latinae, tomus I., Stephano Doleto Gallo Aurelio autore. Lugduni, apud Seb. Gryphium, 1536, Col. 1155. Quoted by BUISSON, *Rapport au Ministre de l'instruction publique, Préface à Répertoire des ouvrages pédagogiques du XVI^e siècle*, pp. viii.–x.

"Barbarism reigned everywhere in Europe. Suddenly Laurent Valla, supported by some valiant companions in arms, assailed it in front. . . . Soon the combat spread, and from every country rushed the reinforcements for the army of letters. . . .

"This army of letters assembled from all the corners of Europe made such assaults on the camp of the enemy that finally barbarism has no longer any refuge. It has long since disappeared from Italy, it is gone from Germany, England is saved from it, it has fled from Spain, it is banished from France. There is no longer any city in Europe that will shelter the monster. Everywhere learning is more honored than it has ever been. The study of all the arts is flourishing. Through learning men are led back to the study that they have so long neglected. Now man learns to know himself; now he walks in the full light of day instead of groping hopelessly through the darkness; now man really lifts himself above the animal through the mind that he can cultivate and through the language that he can develop." Dolet wrote thus enthusiastically in happy ignorance of the fate that was awaiting him, for only ten years later he gave up his life in the Place Maubert, Paris, for prematurely proclaiming a freedom that was not yet accomplished, mute but incontrovertible evidence that this barbarism was not yet overcome.

The Spread of the Renaissance: A Contemporary Account.

From the foundation of the *Collège Royal*, the future *Collège de France*, by Francis I. in 1530, we may confidently assert that the progress of the Renaissance was fairly under way. This college, really an institution of superior instruction, was established as a protest against the anæmic scholasticism and the narrow religious dogmatism as represented in the university teaching of those days. It was founded as an association where there was full opportunity for independent thought and research outside the domain of theology in distinction from the close corporation of subservient minds that made

Royal College.

up the body of the real university teachers. The first two chairs founded were those of Greek and Hebrew, followed some four years later by one of Latin, and very shortly by a still wider expansion of the scope of the intellectual work. Here then was a body of teachers known as *lecteurs royaux*, paid directly from the royal treasury and no longer dependent on the fees collected from their students. This again militated in favor of free and untrammeled thought which was the cardinal principle of the foundation. This institution aroused bitter animosity on the part of the university on the ground of encroachment on its hereditary rights and privileges, but the opposition came to nought as it did again less than half a century later in the case of the Jesuits. Of a truth "the eldest daughter of the king of France"[1] had already begun to lose her monopoly of the field of education.

The Study of Greek at Paris.

The chair of Greek founded at the College of France did not represent the beginning of that study at Paris, for Greek had already been taught there long before the time of Francis I. Previous to the fall of Constantinople, the study of the ancient languages had for many years been much neglected. Even Cicero and Virgil were as completely forgotten as Sophocles and Homer. In 1450 one Gregory of Tifernus, a fugitive Greek, had made his way to Paris and opened a school for the study of his native language.[2] Some years later the university itself called Greek teachers from Italy, but the chief credit for the revival of the interest in Greek in France is due to the great scholar Budæus (1467–1540). One of the foremost humanists of his day, at one time the friend of Erasmus, he discovered anew the Greek and Latin civilizations through the study of the languages and the writers in their original form and thus contributed immensely toward a knowledge of the life and times of the ancients. In fact,

[1] "La fille ainée du roi de France," a name bestowed upon the university by Francis I. in 1515 and subsequently in quite common use. *Cf.* PASQUIER, *Recherches de la France*, p. 811.

[2] KILIAN, *Tableau historique de l'instruction secondaire en France*, p. 19.

Budæus was largely responsible for the foundation of the College of France, for he not only suggested the plan to Francis I., but he continued his importunities until he saw the professorships actually established.[1] It was well on toward the middle of the sixteenth century in the little college of Ave Maria under the direction of Ramus that we find Greek and Latin authors for the first time studied together in the University of Paris.[2]

A Typical Paris College at the Beginning of the Sixteenth Century.

The situation at the college of Sainte-Barbe about 1500 (at that time one of the youngest colleges of the university) is probably typical of the general conditions then prevailing in Paris.[3] The organization of the sixteenth century college was decidedly looser than it is to-day. At the head was a principal whose control was chiefly exercised over the *boursiers* or scholarship holders. We must not forget that when the colleges were first founded within the university these scholars formed the only class of pupils, but as time went on modifications supervened, and at this period we find the character of the student body considerably changed. Among the resident pupils were (1) the *convicteurs* or *portionistes*, regular boarding pupils, (2) the *caméristes*, usually young men of wealth who lived at the college in the charge of a particular master. These latter students provided their own food and service, and were dependent upon the principal merely for their rooms, fire, and instruction. Not more than five or six of these *camérists* at the most were under a single master, and while they lived in the college they formed a group quite apart. Among the non-resident pupils were (1) the *martinets*, "the swallows," and (2) the *galoches*, so-called from the foot covering they wore in winter as a protection against

The Students.

[1] It is interesting to note that at one time Erasmus was considered as director of the undertaking and was actually approached about 1517 to that effect. Although in hearty sympathy with the plan, the Dutch scholar refused the offer. LEMONNIER, *op. cit.*, V., pt. 1, p. 291.

[2] WADDINGTON, *Ramus, sa vie, ses écrits, et ses opinions*, p. 33.

[3] Based chiefly on QUICHERAT, *Histoire de Sainte-Barbe*, I., pp. 73–92.

the mud of the Latin Quarter. The *martinets*, forming the larger part of the student body, were often altogether unknown to the principal, for inasmuch as they paid their fees directly to their masters, they never came in contact with their principal until they presented themselves for their degrees. The *galoches* were chiefly students of mature years who wandered about where fancy prompted, making their own arrangements with the masters whose courses they frequented. Finally there was a sixth class of students, the domestics, whether general servants of the college or private servants of the masters or of the *caméristes*. These servants were almost invariably poor students who were working their way along toward an education as best they could. It is interesting to note that Ramus was for a time in this capacity at the College of Navarre.

The day of the college student began then very early in the morning, much earlier even than in France at the present time. At five o'clock class work was already under way. This first period lasted an hour and then everybody went to mass. After that came breakfast, then a short intermission until eight o'clock, the time of the principal lesson of the morning. This was a full two-hour period and was followed by another hour of discussion or review of the preceding lesson. At eleven o'clock the resident students all assembled in the refectory for dinner. Although they had but one meat course and one vegetable course, the repast was extended over a whole hour, for it was preceded by the reading of a chapter from the Bible or from the life of one of the saints and was followed by the principal's announcements either of public reproof or commendation. Then came an hour's quiz on the morning lecture, followed by an hour of rest. The college authorities took good care not to leave their students any idle time, for this "rest period" was taken up with a public reading from one of the poets or the orators. The principal lesson of the afternoon lasted from three to five o'clock, followed, as in the morning, by discussion. From six to seven, supper, and then

Program of Work.

another hour's quiz on the work of the afternoon. This was followed by a vesper service, and the curfew rang at nine o'clock. The masters and some specially authorized students were permitted to sit up until eleven o'clock. The only real recreation was on Tuesday and Thursday between the close of the afternoon class and supper time. Although holidays were then much more numerous than now, these did not interfere with the work, for as in the early days of the university, they were given over to subjects outside the regular program, the "extraordinary lectures" of former times.

It is not surprising that Erasmus, Rabelais, Ramus, Montaigne, and Vives found material for ridicule in the face of such exercises as the following, chronicled by the last named writer:[1]

Class Room Exercise.

Master. Child, tell me, in what month did Virgil die?

Pupil. In the month of September, master.

M. In what place?

P. At Brindisi.

M. What day of September?

P. The ninth before the Calends.

M. Rascal! Do you want to dishonor me before all these gentlemen? Bring me my ferule, draw back your sleeve, and hold out your hand for having said the ninth instead of the tenth. See that you answer better.

. . . . . .

M. How did Alexander raise himself when he fell to the ground in first setting foot upon the soil of Asia?

P. In leaning on his hands and raising his head.

The sixteenth century was a period of enormous educational activity. A mere cursory examination of M. Buisson's *Répertoire des ouvrages pédagogiques du XVIe siècle*, an explanatory catalogue of the books of that period found to-day in the libraries of France, containing six hundred and fifty pages, will give some idea of the immense amount of thought

Fecundity of Educational Thought.

[1] Quoted by QUICHERAT, *op. cit.*, I., pp. 88–89.

devoted to education in that century, a period second only to that of the last few years. From Germany we find the names of Luther, Melanchthon, and Sturm; from Holland, Erasmus; from England, Ascham; from Spain, Vives; from France, Rabelais, Montaigne, and Ramus. Of these three French writers, it was Ramus that left the deepest impress upon the actual education of his time. Rabelais with his keen satire and his advocacy of scientific education, and Montaigne, in his quieter, more dignified fashion with his insistency that the man should first of all be a man and subsequently a doctor, a lawyer, a man of the world, were both of them essentially theorists, whereas Ramus was not only a far-sighted educational thinker, but furthermore a practical teacher. To borrow a fine expression from M. Buisson, Rabelais and Montaigne were both "teachers of genius, but teachers by accident."[1]

Ramus.

Ramus, as professor of rhetoric and later as principal of the College of Presles, instituted important reforms there and succeeded in building up a flourishing institution where before had been only consistent mediocrity.[2] The most significant of the changes he introduced were (1) the union of the study of eloquence and philosophy in the same class room, he taking the rhetoric in the afternoon and his colleague Talon the philosophy in the morning; and (2) the freedom with which he discussed the text. To criticize Quintilian, much less Cicero, was almost sacrilege. This presumption brought him widespread notoriety in the university world and even persecution, especially since he was already suspected of lukewarmness toward certain orthodox theological doctrines. Despite the machinations of his enemies he was appointed professor royal at the College of France in 1551, and there he soon found other independent thinkers that shared his religious doubts. In his suggestions to the king in 1562 on the reform of the university, he diagnoses the situation with wise acumen and

[1] BUISSON, *op cit.*, p. xiv.

[2] WADDINGTON, *Ramus, sa vie, ses écrits, et ses opinions*, p. 64 *et seq.*

advises drastic changes. The most significant for us are the suggestion that in order to reduce the cost of education for the students, there should be established in each faculty a certain number of professors with fixed salaries paid by the State who could thus dispense with the necessity of student fees,[1] and the recommendation that the colleges confine themselves to grammar, rhetoric, and logic, and that the university should teach philosophy, law, medicine, and theology.[2] In other words, he proposed a sharp demarcation between the fields of secondary and superior education, a suggestion that was not adopted until after the Revolution. Some of his other ideas in regard to enriching and extending the university curriculum (in the arts faculty by the addition of courses in mathematics and physics) were carried out in the great reform of Henry IV. Ramus himself did not live to see them realized, for he perished in the sanguinary days immediately following Saint Bartholomew's.

His Educational Reforms.

At the time of Ramus's projected reforms, a real new birth seemed to be taking place all over France. He himself bears witness to the position of the University of Paris in the world of letters, for he says "that no one is considered to have had a liberal education who has not studied at Paris."[3] The numerous educational writings have already been noted. The principles of the Reformation had made marvellous progress throughout the length and breadth of the land so that Protestant colleges were springing up in great numbers. But the dark clouds of religious strife had already begun to gather, and the civil wars of the League put an end to all these fair promises. Thirty years after the period of Francis I., these Protestant colleges had practically all disappeared, and the reactionists

The Renaissance and the Reformation Develop Together.

[1] *Avertissements sur la réformation de l'université de Paris au Roy*, 1562 (An undated reprint paged 117–163), p. 123 *et seq.*

[2] *Ibid.*, pp. 139–140.

[3] RAMUS, *op. cit.*, p. 158.

were everywhere dominant, at what cost to France one can only conjecture. "One may believe," says a French writer, "that Protestantism, if it had triumphed in France, if it had not been hunted out during the religious wars before being exterminated by the revocation of the Edict of Nantes, would have given us what we have hardly obtained to-day after three hundred years of struggle and effort, a strong organization of primary instruction."[1]

Reaction against Humanism.

From about the middle of the century we see an important linguistic change, for French begins to displace Latin as the language of scholars. In 1555 Ramus published his *Dialectic* in French, and followed it seven years later with his *Reform Plan for the University* and his *French Grammar* both in the vernacular. In 1565 one Henri Estienne published a treatise on the *Similarity between the French and the Greek Language.* In 1576 Louis le Roy, one of the professors of the Royal College (the college of France) expounded the orations of Demosthenes in French rather than in Latin, the medium of interpretation hitherto employed.[2]

The Jesuits.

In the meantime a new organization had been created that was destined to play a leading part in the educational history of France for nearly two centuries. This was the Society of Jesus, commonly known as the Jesuits. Legally recognized by Papal bull in 1540, Loyola and his little band went forth to defend and to extend the Catholic faith, to lead the Counter Reformation against the rapidly increasing forces of Protestantism. Beset by enemies within as well as without the church, they nevertheless persisted until, supported in large measure by the military character of their organization, they had fairly hewn out a place for themselves.

[1] COMPAYRÉ, *Histoire critique des doctrines de l'éducation en France depuis le seizième siècle*, pp. 457–458. Written in 1879, before the passage of the great fundamental laws which underlie the fine primary school system of France to-day.

[2] LEMONNIER, in LAVISSE, *Histoire de France*, V., pt. 2, pp. 287–288.

From the very first they wisely recognized that the most effective way of accomplishing their ends was to lay hold upon the youth — not all the youth, but only the most promising of them, the probable future intellectual leaders — and to mould them during their most impressionable period, the years of adolescence. "As defined by Jesuit authors, the education of the youth means the gratuitous teaching of letters and science, from almost the first beginnings of Grammar up to the culminating science of Sacred Theology, and that for boys and students of every kind, in schools open to all."[1]

Loyola and his first companions had been fellow students together at Paris, and thither the Jesuits turned their attention. After years of struggle they established themselves there, and in 1563 opened the College of Clermont, later known as Louis-le-Grand and to-day one of the most important lycées of Paris. Here then was the university again compelled to share its time-honored rights as an educational institution, but the College of Clermont proved to be a doughtier antagonist than the Royal College. The instruction in the new college was not fundamentally different from that in the other colleges. It reiterated the humanistic emphasis upon Latin and introduced the study of Greek, but it rejected absolutely all spontaneity, all tendency toward individuality. The striking innovation, however, was the gratuitous instruction, and this was perhaps the chief reason why the university could not compete with it successfully, for the professors of the older colleges were still forced to exact fees from their students. In the meantime the College of Clermont grew and waxed strong in spite of the persistent efforts of the university to drive out this vigorous young rival. So keen was the competition that by 1579 the greater part of the university colleges were half empty and scarcely one fifth of the number then existing had not been compelled to rent their rooms to persons outside the

College of Clermont.

[1] HUGHES, *Loyola and the educational system of the Jesuits*, p. 43.

student body.[1] In fact, this competition together with the disasters accompanying the Wars of the League worked such havoc among the other colleges that sooner or later all of them were forced to close their doors, and the College of Clermont was the only one whose classes were not suspended during these terrible years.[2] Soon after the entry of Henry IV. into Paris in 1594, the Jesuits fell into disfavor on account of suspected complicity in the attempt upon the king's life, and they were expelled from Paris and banished from the realm. Not until after the death of Henry IV. in 1610 was the College of Clermont completely restored to its old position, and it was eight years later before the Jesuits were finally triumphant in undisputed power in their college with the opposition from the university practically broken.

Success of the Jesuits.

The success of the Jesuits has been due in no small degree to the military character of their discipline, to their implicit obedience of their superiors. When the *Ratio studiorum* appeared in its final form in 1599, it undoubtedly embodied the most advanced pedagogical ideas of the time as applied to the aim of the Jesuit system of education. It represented the best work of the most learned of the order for years, and they skilfully adapted from Sturm and the other humanists as well as from current university practice whatever they found serviceable for their purposes. Everything was carefully prescribed even to the minutest detail of method, and no deviation was allowed. When to nicety of method are added determination, enthusiasm, and a subordination of personal interests, we find little difficulty in accounting for the success of a movement which was primarily religious but incidentally educational, especially when we call to mind the utter disorganization of the forces opposed to it.

In 1594 Henry IV. found Paris in a state of almost utter demoralization. Of the forty-three colleges of the university

[1] QUICHERAT, *Histoire de Sainte-Barbe*, II., p. 63.
[2] ÉMOND, *Histoire du Collège de Louis-le-Grand*, p. 67.

nominally in existence at that time,[1] not one was carrying on its work. The students were scattered; the buildings were closed or were serving as barracks or stables;[2] the outlook which had been so auspicious in 1562 was shrouded in gloom; the university was veritably worse off than it had been one hundred and fifty years earlier, before the reform of Cardinal d'Estouteville.

Educational Condition in 1594.

Almost immediately the king set about a reform of the university. It is interesting to trace here the gradual dissolution of the power of the Papacy over the university, and so over education in general in France. The university owed its foundation to the pontifical authority, and that power had directed exclusively the first two great reforms in its history. In 1452 the same influence dominated, but Charles VII. had appointed parliamentary commissioners to assist the Papal legate. At this time, 1595, it is a royal commission that controls the situation, but the ecclesiastical authority is nominally represented in the person of the Archbishop of Bourges as the chairman of the reform body. As we study the educational progress in France during the last few years, we see that this church influence has now entirely disappeared, like the swing of the pendulum as it were, from absolute ecclesiastical control to absolute civil control, and this evolution has required almost exactly seven hundred years.

Evolution of Civil Control of Education.

The results of the labors of this commission were published in the Statutes of the University of 1600. The influence of the Renaissance is easily discernible, for there is a decided broadening of the course of study[3] with the emphasis, to be sure, upon the Latin language. Most of the important classic

Reform of the University, 1600.

[1] For the list of colleges in Paris in 1600, see Appendix C.

[2] JOURDAIN, *Histoire de l'Université de Paris*, p. 2.

[3] For the course of study of the university colleges in 1600, see Appendix B.

writers are represented (except Martial, Livy, and Tacitus), even including Tibullus, Perseus, and Propertius, "and sometimes Plautus."[1] The place given to Greek in the program marks a decided change. Homer, Hesiod, Theocritus, Plato, Demosthenes, Isocrates, and Pindar are all specifically mentioned, and Greek shares with Latin the honor of being required for promotion to the class in philosophy.[2] There is a radical departure from the old subserviency to grammar in its narrow sense, for of the six hours of lessons per day, only one may be given over to precepts and rules, the other five being devoted to study and consideration of the original texts.[3] The old requirement as to the use of Latin as a common medium of communication is reiterated, and every student is forbidden to use the vernacular within the college precincts under penalty of punishment fitting the dereliction.[4]

Length of the Course.

There is no exact indication of the amount of time this course would require, but it seems reasonable to suppose it must have extended over a period of five years. The work of the last two is specifically indicated, and it is difficult to see how the "rules of grammar, selections from Terence, from the letters of Cicero, from the *Bucolics* of Virgil, and from other authors of equally pure Latinity" could be covered in less than one year, and "the selections from Sallust, from Cæsar's *Commentaries*, from Cicero's *De Officiis* and his easier *Orations*, as well as Virgil and Ovid, together with a comparative study of Latin and Greek grammar" could be completed in less than two years. Assuming as we must that the boys were nine years old when they began this course, and were already familiar with the elements of the Latin, this arrangement corresponds fairly clearly with Sturm's course at Strasburg,[5] and furthermore it agrees exactly with the time allotment of the *Ratio*

[1] *Statua Facultatis Artium*, XXIII., in JOURDAIN, *op. cit.*, *Pièces justificatives*, p. 4.

[2] *Ibid.*, XXIII., XXXVI.

[3] *Ibid.*, XXV.

[4] *Ibid.*, XVI.–XVII.

[5] SCHMIDT, *La vie de Jean Sturm*, pp. 286-288.

studiorum as well as with the course prescribed for the College of Narbonne in 1599.[1]

On the other hand the work in philosophy is very carefully outlined, even to the daily program. It consists of a two-year course devoted almost exclusively to Aristotle, but the aim is directed to a mastery of the content rather than the form, toward a philosophical rather than a grammatical study of the text.[2] In the second year of the philosophy course we find the beginning of mathematics as a secondary study, one hour a day being devoted to Euclid.[3] Philosophy.

The suggestions of Ramus were again carried out in regard to the fees for instruction. These had been steadily creeping up, until it was almost impossible for a poor student to finish his course, much less to complete his work for any of the higher degrees. At this time the regents were absolutely forbidden under threat of loss of position and possible additional punishment at the hands of a magistrate, to demand or even to accept from a student more than five or at most six gold crowns per year (between fifty-three and sixty-four francs of the money to-day). The charges for the pupils below the third class were about four crowns.[4] It goes without saying that the price of board was quite apart from these fees for instruction, but this was fixed in October of each year by a standing committee whose jurisdiction extended over all the colleges.[5]

In August of the second year of the philosophy course, the candidates for the baccalaureate were examined on the subjects of logic, ethics, physics, and metaphysics, by a special commission appointed for that purpose. The successful candidates were then examined for the license by another commission, and in September they received the master's degree. Thus those that survived these Degrees.

[1] FÉLIBIEN, *Histoire de la ville de Paris*, V., p. 800.
[2] *Statua Facultatis Artium*, XLII., *op. cit.*
[3] *Ibid.*, XLI.
[4] *Ibid.*, XXXII., XLV.
[5] *Ibid.*, LXVII.

ordeals were ready to begin teaching at the opening of the university in October.[1] According to this plan the interval between the bachelor's and the master's degrees has been considerably shortened. The first of these is purely an academic degree based on scholarship, the license implies the possession of fitness to teach, and the master's degree is merely the formal admission of the candidate into the teaching body of the university. The possession of this higher degree from the University of Paris (or adoption by the masters of the university, which was recognized as the equivalent) was absolutely required of all teachers of grammar, rhetoric, or philosophy in the colleges of the university.[2] In other words, the master's degree was the minimum qualification of the secondary teacher.

Inspection.

The duty of inspecting all the colleges in the first month of his incumbency was again imposed upon the rector.

Importance of this Reform.

These statutes have been described thus at length because in the first place they mark the beginning of the modern university, and again because, save for various modifications introduced from time to time, especially in 1626 and in the last half of the eighteenth century, these three hundred and ten articles remained the statutes of the university until its suppression in 1793.

The Work of the Port-Royalists.

The Jesuits were not the only religious body that was interested in the education of the youth. The seventeenth century in France was marked by the rise of two other organizations within the purview of the Church, the Port-Royalists and the Oratorians, both of whom came into active competition with the older order. The first of these was crushed out (1660), while the Oratorians lived to see the suppression of the order of the Jesuits and even inherited many of their colleges when the latter were banished from France in 1764. Although

[1] *Statua Facultatis Artium*, XLVII., L., LIII.
[2] *Ibid.*, LVI.

the schools of the Port-Royalists had such a transitory existence (less than twenty years at the most), yet their spirit long survived the dissolution of their schools, and they left a lasting impression on French education. The study of the French language was with them a real subject of instruction, even though the French was often a translation of the Latin classics, but it is to their lasting credit that they tried to lay a good foundation in the vernacular before beginning the study of a foreign tongue. They preferred to learn the Latin through the French rather than the French through the Latin. Another radical departure from established custom was in the place they gave to the rational process. They substituted Descartes for the vestiges of scholasticism that still persisted in the colleges of the Jesuits, and sought not to form good Latinists but rather to send out young men of independent judgment. Nevertheless, as has been pointed out before, the Port-Royal system was an ideal rather than a plan for general application. Aside from the principles of method noted above, its chief merit depended upon small groups of picked pupils (not more than five or six in a class), and the fact that they were all directed by teachers of superior attainments, ideals which are impossible of realization in any public school system.

The Oratorians.

Formed like the other religious orders primarily for the support of the Church, the Oratorians turned their efforts to the recruitment of the priesthood and assumed the responsibilities of a teaching body in order the better to attain their primary end. After their formal registration by the Parliament of Paris in 1613, they spread with marvellous rapidity and all unconsciously soon became strong rivals of the Jesuits. By 1629 they already had some fifty establishments in various parts of France.[1] Like the Port-Royalists the Oratorians laid much stress on instruction in the vernacular, the first years of the instruction in grammar being entirely in French.[2] Such

[1] PERRAUD, *L'Oratoire de France au XVII^e et au XIX^e siècle*, pp. 49, 54.

[2] At Juilly a sixth class of grammar was established for this purpose, fol-

was the vitality of the Latin, however, that its use was made obligatory from the fourth class up. The history (and at Juilly, their most important college, there was always a special master for that subject) included sacred history in the two lowest classes, Greek and Roman in the next three, and French history in the three most advanced classes. This latter was looked upon as particularly vital, and the instruction from the lowest to the highest class was all in the native tongue.[1] Geography was taught in connection with the history, while physics and mathematics (including algebra, geometry, plane and spherical trigonometry, analytical geometry, and the calculus) were the subjects of special instruction.[2] The Oratorians and the Port-Royalists are equally to be credited with beginning the study of grammar in the vernacular, but for the emphasis placed upon history, mathematics, and physics, the Oratorians have to share the honors with none. In fact, in the course in French history, as Rolland bears eloquent witness, the Oratorians were more than a century in advance of the colleges of the university. "The youths who frequent the college know the names of the consuls of Rome, and are often ignorant of those of our kings; they know the great deeds of Themistocles, of Alcibiades, . . . they know not those of Duguesclin, of Bayard . . . ; in a word the great men who have made our nation illustrious . . . have made no impression on them."[3] Thus we find that the classics have ceased to monopolize the instruction of the colleges, and the courses are being framed more and more with the idea of turning out boys with an all-around equipment, with a liberal education.

Of these three religious teaching bodies the Jesuits were by far the least progressive, for they continually harked back

lowed some years later by a seventh, exclusively devoted to the study of French grammar, and to a few elementary notions of sacred history. HAMEL, *Histoire de l'abbaye et du collège de Juilly*, p. 215.

[1] PERRAUD, *op. cit.*, pp. 220–221.

[2] *Ibid.*, p. 222.

[3] ROLLAND, *Plan d'éducation*, p. 105.

to the Constitutions of Loyola and the *Ratio studiorum* of his successors. The *Ratio studiorum* of 1599 was "found to be not only new, but complete, and good for centuries to come."[1] So "good" in fact, that save for a few modifications, particularly in 1832, and these not fundamental, it remains the Magna Charta of the order to-day, and the youth are still taught under the influence of the Jesuitic humanism of three hundred years ago. In the words of one of the generals of the nineteenth century in speaking of instruction in the lower studies: "The study of Latin and Greek letters must always remain intact and be the chief object of attention."[2] However that may be, the Jesuits of the seventeenth century far outdistanced both of their ecclesiastical rivals in the popular favor, and succeeded in crushing one of them absolutely. To the old College of Clermont were annexed successively various adjoining pieces of property as the student body increased, so that before the end of the century there were no fewer than five hundred resident pupils.[3] The favor of the king, who was flattered by the Jesuits' crafty change of the old college name in his honor, attracted to its halls the scions of the nobility of the realm, and the College Louis-le-Grand under royal patronage became the most flourishing institution of Paris. Encouraged by their success here they multiplied their colleges throughout the length and breadth of the land.

Jesuit Conservatism and Progress.

The Jesuits were not the source of all the troubles of the university during these years. The lower or grammar schools, which were as old as the university itself and had remained under the jurisdiction of the Precentor of Notre Dame, had been gradually pushing their work upward until grammar, according to the interpretation of their director, included all the classic

The Grammar Schools of the Cathedral.

[1] HUGHES, *op. cit.*, p. 88.

[2] GENERAL ROOTHAAN writing in 1832, quoted by HUGHES, *op. cit.*, p. 292.

[3] ÉMOND, *Histoire du collège Louis-le-Grand*, p. 137.

studies up to philosophy.[1] He claimed the right to have this grammar taught by whom, how, and wherever, within the limits of Paris and its environs, he saw fit. These schools, in 1675, had rather more than five thousand pupils, and the university, feeling that they were encroaching dangerously and irresponsibly upon the rights of its colleges, prayed the king that they be confined within their ancient limits.[2] Although Louis XIV. in a letter to parliament forbade the teachers of these schools to teach anything more than reading, writing, and the elements of the Latin language, and to receive any pupil more than nine years of age,[3] the question was by no means settled. It dragged along until after the opening of the new century. Nevertheless it was these same grammar schools or "little schools" as they were called (not to be confounded with the "little schools" of the Port-Royalists), that continued to carry the brunt of preparatory work for entrance to the arts faculty of the university.

Colleges of the University during the Seventeenth Century.

In the face of all this competition from the lower schools and the religious bodies, together with the internal dissensions arising from the philosophical and theological questions that were coming to the fore, the university as a whole was far from prosperous. The reforms of the early years of the century had done much, but much yet remained to be done. From the records of the rectoral inspection of 1642, the discipline as a whole showed a commendable progress, but of the forty-three colleges in existence in 1600, there were only four or five that could compare favorably with the best institutions of the Jesuits.[4] They began more and more to imitate the methods of the latter, but found the

[1] JOLY, *Traitté historique des écoles épiscopales et ecclésiastiques*, p. 304.

[2] *Requeste au roy contre les petites escholes*, in JOURDAIN, *Histoire de l'Université de Paris, Pièces justificatives*, p. 104.

[3] JOURDAIN, *op. cit.*, p. 240.

[4] These were Harcourt, Beauvais, Grassins, Cardinal Lemoine, and Montaigu, without considering Navarre and Sorbonne. JOURDAIN, *op. cit.*, p. 145.

free tuition scheme of the churchmen a severe handicap. With the opening of the College Mazarin in 1661, from the bequest of Cardinal Mazarin, the university was in position to compete with the Jesuits on their own terms, for here there were no tuition fees. This college entered immediately upon a career of prosperity that continued uninterruptedly until the Revolution, never having fewer than six hundred students, and in prosperous years even running as high as twelve hundred.[1]

Shortly before the passage from the seventeenth to the eighteenth century, thanks to the wise administration of Rollin, there was a decided improvement both in the discipline and in the academic work of the university. Rector from 1694 to 1696, he conscientiously made the rounds of all the colleges, and with a kind but firm hand sought to modify their discipline and instruction in accordance with the principles enunciated later in his *Traité des études.* Although strangely overestimated by Villemain, who said in the second quarter of the last century that since the publication of this work there had been no progress,[2] nevertheless from the point of view of actual practice it was undoubtedly the most important pedagogical treatise of his age. Classicist though he was and faithful to classical traditions, he wrote this work in French in order to appeal to a larger circle than he could have reached through the Latin. This compromise is all the more noteworthy when one considers that his first work in the vernacular was begun when he was more than sixty years of age. It shows the slow but steady progress of the native language in displacing the Latin in the world of letters.

Rollin and the *Traité des Études.*

In the *Traité des études*, the aims of university instruction (that is, secondary instruction within the author's meaning) are conceived to be: (1) the cultivation of the mind; (2) the

[1] JOURDAIN, *op. cit.*, p. 264.

[2] VILLEMAIN, *Tableau de la littérature française au XVIII^e siècle*, I., p. 226.

development of the moral character; and (3) the formation of the Christian man.[1] He follows the Oratorians and the Port-Royalists in the importance of the French language for the beginning pupils, but he shows his partiality for the classics in the elaborate treatment of instruction in Greek and Latin. Nevertheless there is no attempt, as in the curriculum of the Jesuits, to teach the Latin as a living language, but it is considered as a means of laying under tribute the vast treasures of the classic world. Not merely to form good Latinists, but rather to develop young men of fine appreciation and good taste, who know the right and will do the right, this is the goal he sets out to reach.[2] His program in history is worked out nearly as minutely, but, strange to say, it is limited to sacred and ancient history. In his introductory note he makes this astounding statement: "I do not believe it possible to find time during the course to devote to the history of France. . . . I confess that I have not applied myself sufficiently to it; and I am ashamed to be in a way a stranger in my own country after having journeyed over so many others."[3] He suggests, however, that the students should be encouraged to read the history of their own country in their leisure hours. How far behind the conceptions of the Oratorians and the Port-Royalists!

As he himself modestly observes, save for some few expressions of his own particular views, notably in the instruction in French and history, he has no intention of writing "a new plan of studies, nor of proposing new rules or a new method of instructing the youth, but he merely intends to note what already prevails in the University of Paris."[4] But one ought to add that from beginning to end it is all tempered by his individual interpretation, and it breathes throughout the kindly and gentle spirit of its author. At

[1] ROLLIN, *De la manière d'enseigner et d'étudier les belles lettres* (commonly known as *Traité des études*), *Discours préliminaire*, p. i.

[2] *Ibid.*, pp. XCVIII.–XCIX., CIII.

[3] *Ibid.*, III., p. 11.

[4] *Ibid.*, I., p. civ.

least for the next half century it stood as the ideal which the colleges of the university sought to attain.

A few years before, in 1719, the young king, Louis XV., through the Duke of Orleans, had ordered that in return for a diversion of some State funds to the exchequer of the university, instruction should be gratuitous in all its full course colleges.[1] At that time the salaries of professors of philosophy and rhetoric were fixed at 1000 livres, 800 livres for those of the second and third classes, and 600 livres for those of the fourth, fifth, and sixth classes.[2] This action of the regent was received with great popular approval. It indicated a more widespread application of the innovation begun at the College Mazarin more than thirty years before, and it put the ten colleges to which it applied in position to compete successfully with the Jesuits for the popular favor. Nevertheless the standard set by a decadent royalty was swept away with that power itself, and to-day the gratuity of secondary instruction yet stands as an ideal for France to attain.

Gratuity of Instruction, and Professors' Salaries.

In 1762 appeared the *Émile*, that suggestive but extremely fantastic and Utopian scheme of education. Any analysis of its contents is foreign to the scope of this study, for its importance lies not in any immediate effect on the educational practice of the time, but in the influence it exercised on subsequent educational thought. In this latter respect it was an epoch-making treatise that has exacted tribute from all the great educational writers since that day. The publication of the *Émile* together with the sweeping away of the staunchest supporters of the old educational doctrines in the expulsion of the Jesuits, which occurred that same year, seems to

The Educational Revolution.

[1] *Lettres patentes de Louis XV.*, April 14, 1719, in JOURDAIN, *op. cit.*, *Pièces justificatives*, pp. 167–168.

[2] Equivalent to-day to from $200 to $125. Not a very large income to be sure, but it must be remembered that these men were all celibates, that they had also their living at their college, besides extra fees of various sorts. The greater value of money in those days must also be kept in mind.

suggest that the educational revolution preceded the political revolution, and that the former dates really from 1762, when the old teaching force of the colleges disappeared from the scene.[1]

The Fall of the Jesuits.

The fall of the Jesuits had come about somewhat suddenly. Although the gratuity of instruction in the full-course colleges had enabled the university to compete with the Jesuits on more than even terms, yet the College of Louis-le-Grand had easily held its own, due in no small degree to the fact that the education there often bordered on the spectacular. The college and the order seemed to be prospering more than ever when suddenly the crash came. The attempted assassination of Louis XV. by a former domestic of the college, the expulsion of the society from Portugal, on account of complicity in a plot against the life of the king, the bankruptcy of one of their order who had been engaged in the West India trade, all came in rapid succession. This last was really the most serious blow to the order in France, for it resulted in a general investigation conducted by the Parliament of Paris as well as by the parliaments throughout the kingdom. At this time it seemed as though the stored-up hatred of years burst forth. The political question was undoubtedly uppermost, but evidence is not wanting to show that there was wide-spread dissatisfaction with the Jesuit methods and subjects of instruction,[2] and that their moral conscientiousness was not above reproach.[3] Be that as it may, in August, 1762, the Jesuits were ejected from all their colleges, and their property was sold to satisfy their creditors. In 1764 the order was suppressed throughout the realm of France, and nine years later it was formally abolished by the Papal See. By this first act the Jesuits lost no

[1] COMPAYRÉ, *Histoire critique des doctrines de l'éducation en France*, II., p. 5.

[2] *Cf.* ROLLAND, *Recueil de plusieurs des ouvrages du président Rolland*, 1782, pp. 394, 543, 565, 579–580, 717.

[3] *Ibid.*, pp. 395, 452, 542, 730.

fewer than forty colleges within the jurisdiction of the Parliament of Paris alone, and in the rest of France their colleges fell into the hands of the provincial universities or were directed by the Oratorians or other teaching bodies. In spite of the efforts of the creditors to have the Paris property sold, the parliament declared that the College Louis-le-Grand must never be used for anything but educational purposes. The university transferred its official seat to the home of its former rivals, all the colleges of Paris that were not "full course" (twenty-eight in number) were formally amalgamated with Louis-le-Grand,[1] providing one hundred and eighty-five effective scholarships, which number was subsequently increased to six hundred, and for the first time in two hundred years the university was left in undisputed control of secondary and superior education in Paris. Thus the secondary education was concentrated in the ten full-course colleges that still survived.

The expulsion of the Jesuits created a great gap in the ranks of the teaching force throughout the country. It required only a stroke of the pen to declare these thousands of positions vacant, but how different a matter to fill them again! In its dilemma the Parliament of Paris appealed to the other parliaments and to the universities for help in drawing up some general plan of education. The result of this request is embodied in the educational plan of Rolland d'Erceville, which was presented in a report to parliament in 1768. In many respects this merely reiterated the doctrines of Rollin and the Port-Royalists, but it suggested others which, if not original, were yet innovations in the educational conceptions of the university. Rolland's ideas of the importance of history are even more radical than those of Rollin. Like the latter he insists that history be taught in every class from the lowest through the rhetoric,[2] but he wants it

Rolland's Educational Plan, 1768.

[1] JOURDAIN, *op. cit.*, *Pièces justificatives*, pp. 215–220.

[2] At this time the classes were respectively, the sixth, fifth, fourth, third, second or humanities, rhetoric, and two years of philosophy.

divorced from the course in grammar and intrusted to the hands of special teachers, and furthermore he would emphasize modern and national history.[1] Not only is a more regular and extensive study of French to be undertaken, but more important still, French is to be added to Latin and Greek as a source from which to draw illustrations for the principles of rhetoric.[2] Rolland, however, did not quite dare to sanction the radical measure of the Minister of Dijon who ordered that the French *replace* the Latin and Greek for this purpose. One of the most attractive points about a comparative study of programs is to trace the gradual conquest of the vernacular over the classic tongues. Rolland further urges the appointment of special professors of mathematics and experimental physics, justifying his recommendations by the success of similar innovations at the Colleges of Mazarin and Navarre respectively.[3]

It is in the matter of organization of instruction that Rolland's suggestions were the most valuable, for Napoleon incorporated some of them bodily into his plan for an imperial university forty years later, especially that relating to the centralization of educational control. This led to a sequestration of the three orders of education, and for fear that the system might become top heavy, Rolland advocated a reduction in the number of full-course colleges, replacing some of them by pedagogies or part-course colleges where the instruction would be limited to religion, ethics, French grammar, the elements of Latin and of history.[4] In this suggestion of less lavish opportunities for secondary instruction, Rolland was merely restating the idea that Richelieu had brought forward long before and that reappeared nearly a century later in Bismarck's fear of an "educated proletariat." "One should never lose sight of the principle," said Rolland,

[1] ROLLAND, *op. cit.*, pp. 118–123.
[2] *Ibid.*, p. 112.
[3] *Ibid.*, pp. 139, 144.
[4] *Ibid.*, p. 30.

"that each one ought to have within his reach the education for which he is best fitted."[1] By this he meant the universal opportunity for education, provided the individual was fitted to receive it, but he never seems to have reached the grander and more vitally fundamental ideas for the State, of gratuitous and compulsory education.

One of the most serious handicaps in the way of realizing this universality of opportunity was the lack of competent teachers, a situation that had been incalculably aggravated by the recent measures against the Jesuits. In order to overcome this difficulty, Rolland, in accordance with the suggestion of one Abbé Pélissier that had appeared shortly before, proposed to establish a training school for teachers in each university centre.[2] The details of the plan thus brought forward were strikingly similar to the great scheme of the Convention that had such an ephemeral existence a few years later, but which was the first practical attempt to put the training school idea into existence in France. One of the primary aims to be served by such a school was to bring the standard of the provincial teachers up to that in Paris, so "that all the French should share alike in the treasures of the sciences that are accumulating from day to day — in a word, that the time would come when one could no longer distinguish a young man brought up in the provinces from one who had been educated in the capital."[3] Thus we see that the plan of Rolland was no chimerical scheme like Rousseau's *Émile*, but bristled with sound sense and practical ideas. The time was not then ripe, however, for accomplishing these reforms. It needed the drastic purgation of the Revolutionary period, followed by the constructive genius of Napoleon, to put them into effect.

The end of the university was not far off. Almost exactly

[1] ROLLAND, *op. cit.*, p. 25.
[2] *Ibid.*, p. 59.
[3] *Ibid.*, p. 22.

a quarter of a century later the decree of the Convention of September, 1793, abolished the old order of things educational, and the full-course colleges went down to ruin with the ancient University of Paris that had all but finished its sixth century of usefulness.

CHAPTER IV

THE REVOLUTION AND THE PROGRESS OF THE NINETEENTH CENTURY

"THE laws of education vary as the government."[1]

This fundamental truth gives us the key-note to the characteristics of educational legislation during the Revolutionary period in French history. All was confusion in political life; all was chaos in educational affairs. The bill passed to-day was likely to be repealed to-morrow, or perhaps the government that voted the new law would cease to exist before the changes contained therein could become operative. Nevertheless, in spite of all the transitoriness of the acts of the governing bodies, certain great principles were enunciated then that have since been elaborated in a more practical form and have been incorporated in the educational creed of the nation. The astonishing fact is not that the national assemblies from 1789 to the beginning of the Consulate did not leave their educational projects in a more finished state, but rather that they found time during that period of kaleidoscopic changes to consider educational questions at all. Yet of all the committees of the Convention, the Committee of Public Instruction was second in activity only to the Committee of Public Safety, and that, too, during 1793, the "terrible year." Whatever efforts had thus far been made to popularize education, particularly secondary and superior, and give it universal application, certainly had not been successful. The education in the colleges under the old régime had unquestionably been for the few. Save for some

The Spirit of the Revolution.

[1] MONTESQUIEU, *De l'esprit des lois*, bk. IV.

sporadic efforts, it had all been restricted to the domain of letters, and had ministered very little to the practical needs of society. Indeed, aside from the time when Latin was essential for church purposes or necessary in the diplomatic service, what utilitarian value had there been in the classic learning which formed the body of instruction in the college courses? The impulses, and that is equivalent to saying the acts, of the Revolutionary assemblies were mainly in protest against everything that had been. The university and its colleges had been; therefore they must go. This destruction, however, was only preliminary to the reconstruction that should rehabilitate them on a grander, more extensive, more national, more socially useful scale than before. Through the developments in the history of French secondary instruction that we have cursorily sketched up to this period, the ordinary man had scarcely been considered in the educational scheme; yet ever since the Battle of Bouvines sounded the death knell of the knight of the Middle Ages, this "common man" had been coming nearer and nearer to the front of the stage. Instead of the supernumerary to be ordered about at will, he had been steadily growing in importance until at the time of the French Revolution he played the leading part. "How have ye treated us?" says Carlyle. "How have ye taught us, fed us, and led us, while we toiled for you? The answer can be read in flames over a nightly summer sky."[1] A more pregnant answer still may be read in the declaration of the *Rights of Man*, and in the applications of these principles in the subsequent decrees of the Constitutional Assembly. This, in turn, was shortly followed by the *Constitution of 1791* which guaranteed the creation of universal public instruction, gratuitous in its lower stages.[2]

Instead of the religious ideal, the notion of personal safety in the sight of the Almighty, that had formed the basis of the educational efforts of the Middle Ages, and that had

[1] CARLYLE, *French revolution*, bk. VI., ch. 3.
[2] *Constitution of 1791*, title I.

persisted throughout the period of the Renaissance and the Reformation, it is now the destiny of the political world, the safety of the State, that underlies the educational schemes. Lepelletier and the still more fiery radical, Danton, voiced this conception in declaring that the child belonged to the Republic before belonging to his parents, and consequently he should be taken away from the home surroundings and educated by, at the expense of, and for the State.[1] This was admittedly nothing less than the revival of the educational system of Sparta. It was not so much what these iconoclasts actually effected in the direction of educational reform, as what they dreamed of doing that excites our interest and our admiration to-day, for the principles that have survived are far more important than the institutions.

The great projects of Talleyrand and Condorcet, the scheme of the Constitutional and the Legislative Assemblies respectively, compassed the whole gamut of educational activity from the modest village school to the Institute at the capital, but the times were not yet ripe for any such ambitious organization of public instruction. With the advent of the Convention the extreme radicals soon gained the control, and these earlier comprehensive plans were replaced by those of a distinctly smaller calibre whose emphasis was chiefly devoted to the field of primary education. Not only were these projects more limited in their scope, but they marked the far reach from the liberalism of the days of 1789 to the Jacobinism of 1793, which latter was nothing less than the despotism of an irresponsible clique replacing the tyranny of a monarch. Thus for a time we find that supposititious notion of equality pushed to an absurd extreme. It was only in the last year of the Convention that the educational plans showed evidences of former liberal ideas, and higher education received some

The Assembly Plans Contrasted with those of the Convention.

[1] *Plan de Michel Lepelletier*, in HIPPEAU, *Instruction publique en France pendant la Révolution, Discours et Rapports*, pp. 349, 385.

attention. The founding of the Polytechnic School, the School of Mars, the Conservatory of Arts and Crafts, and the Normal School, followed the next year by the organization of the Bureau of Longitude, the National Institute of Music, and the Central Schools, all came in rapid succession within a period of less than a year. In those days no project appeared too difficult, no conception too grand. To have the idea was equivalent to launching the undertaking.

École Normale.

One of the most important of these ephemeral creations of the Convention was the establishment of the Normal School. This was the first legal recognition in France of the distinction between mere academic training and teaching ability. Furthermore, it presaged the secondary normal school of a few years later and laid the foundation for a course of training whose utility scores of men conspicuous in the educational world in America to-day scoff at most acrimoniously. Rolland had already promulgated the same ideas some twenty years previous, drawing them admittedly from a series of pamphlets issued by one Abbé Pélissier. The plan as presented to the Convention by Lakanal provided for the establishment at Paris of a great central normal school which should furnish the teaching force of the departmental normal schools subsequently to be established.[1] After a very brief existence of less than four months (January 20 to May 15, 1795), this school passed out of existence, and there is no evidence that there was any attempt made to establish the departmental normal schools as originally contemplated. The work of this Paris school only emphasizes the cardinal principle that prompted its foundation. The mere recital of the names of the professors of this ill-starred effort (among whom were Lagrange, Laplace, Monge, Bernardin de Saint-Pierre, Daubenton, and Berthollet) is a sufficient guarantee of the intellectual qualifications of the teaching staff, but from the point of view

[1] *Décret de la Convention nationale*, 30 Oct., 1794, *Recueil*, I., sec. 2, pp. 26–28.

of a training school the undertaking was a conspicuous failure; in the first place because these scholars failed to grasp the purpose for which the school was established, and in the second place because the work they gave was not adapted to the intellectual attainments of their students. Laplace, speaking for himself and Lagrange, in his opening remarks said that they expected to present a "general sketch of all the discoveries made in mathematics." In accordance with this aim he began with arithmetic, and at his fourteenth and last lecture had reached the discussion of the theory of probabilities.[1] Bernardin de Saint-Pierre, who was somewhat surprised at being invited to give a series of lectures before these students, announced to them at the first meeting of his course that he would yet require about three months to complete the elaboration of his new treatment of ethics from a scientific point of view[2] and that he would consequently be compelled to postpone the commencement of his lectures until later in the session. The end of the school came before his work was completed. Berthollet confined himself to the recent discoveries in the field of chemistry. Be that as it may, although this first great normal school was far from a success, nevertheless the experiment was not in vain, for Napoleon was keen enough to appreciate the advantages of such a school, and the plan was revived in the new university. This next school went far beyond the experimental stage, and to-day it still stands, the justifiable pride of the secondary school system.

The Central Schools of the Convention.

Each of the three Revolutionary Assemblies had its own grand scheme of popular education, championed respectively by Talleyrand, Condorcet, and Daunou, but all except the last never got beyond the paper stage. They were never put into actual execution. The comprehensive system proposed by Daunou

[1] *Séances des écoles normales recueillies par des sténographes et revues par les professeurs*, I., p. 21; VI., p. 32.

[2] *Ibid.*, I., p. 114.

included the establishment of the well-known *écoles centrales*, or central schools, all over France. This was a practical triumph of the plans of Talleyrand and Condorcet, and was a tacit admission that the country must provide for something above the elementary instruction emphasized by Lepelletier and his fellow members during the early days of the Convention. In the spring of 1795 the Convention had voted to establish the central schools in accordance with the report presented by Lakanal,[1] but the plan was too loosely drawn to be carried out. It provided for one school for every thirty thousand population, and each faculty was composed of fourteen chairs representing no fewer than twenty different arts and sciences. Lakanal's bill was merely a kind of encyclopædic enumeration of subjects of instruction, with no specific program to be followed, nor even any division into classes. It remained for Daunou to bring order out of this chaos, and the program of these central schools that formed a part of the organic law of the following October[2] remained substantially unchanged throughout the eight years that they existed. The instruction was divided into three groups: the first, for pupils from twelve to fourteen years of age, included drawing, natural history, ancient languages, and, at the option of the legislative body, modern languages; the second, for pupils from fourteen to sixteen years of age, covered elementary mathematics, physics and chemistry; the third, for pupils of sixteen years of age and over, embraced general grammar, literature, history, and legislation. It requires but a glance to see the enormous difference between the secondary schools of the Revolution and the colleges of the ancient régime. Truly the fall of the classics had been great. These central schools were thus real secondary schools in our sense of the word in America, for they received pupils directly from the primary schools that were established under the provisions of the same law, and prepared

[1] *Décret*, Feb. 25, 1795, chap. 1, *Recueil*, I., sec. 2, pp. 37–38.
[2] *Loi*, Oct. 25, 1795, Title II., *Recueil*, I., sec. 2, pp. 46–49.

their pupils for the special schools such as those of astronomy, natural history, and medicine which were to be established later. This law of the Convention made no attempt to enforce the school attendance, but a subsequent order of the Directory [1] shows a curious effort to encourage attendance at the central schools. This provided that every non-married seeker for government appointment that was not in the army should present a certificate showing that he had been enrolled in such a school, while in the case of a married man with children of school age, the proof that the latter had attended the government schools would be sufficient for this purpose. Applicants who were unable to comply with the above-mentioned provision were required to present satisfactory evidence of the validity of their claims for exemption from these requirements.

At all events, the end of the year 1796 saw two of these central schools under way in Paris (a third one was subsequently added), and one in each of the provincial departments. In distinction from the former practice, they had no boarding pupils. There was also an annual tuition charge not to exceed twenty-five livres (about five dollars), which could be remitted in the case of one quarter of the pupils, provided their financial condition justified their demand for this exemption. These central schools, although they have been severely scored by many critics, nevertheless form an important link in the secondary school system of France, for they bridge over the gap between the old régime, and Napoleon's organization of new lycées and the establishment of the modern secondary school system. True, their organization was incomplete, but nevertheless they expressed in a tangible form the protest of the Revolutionary ideas against the classical training of the monarchy; a kind of "human" education as opposed to the humanistic education of the old colleges. Besides, too, this was a transitional period of momentous consequences, and any such ephemeral educational experiment is bound to suffer when compared with a system backed by

[1] *Arrêté*, Nov. 17, 1797, *Recueil*, I., sec. 2, pp. 87–88.

centuries of tradition. In spite of this, in some instances, notably at Besançon where the central school had five hundred pupils on its roll whereas the former college in its most flourishing days had had barely three hundred,[1] the new schools more than held their own with the old. Furthermore, the criticisms have all been made *ex cathedra*, for these schools lasted too short a time to allow one to judge of their real worth from the character of the students they sent forth. M. Picavet in a painstaking and impartial study of these schools which contains much hitherto unpublished material,[2] brings out the interesting fact that the leading professors of the imperial lycées had almost all been teachers in the central schools. This fact alone would seem to indicate that these institutions could not have been so much of a failure as some of the imperial and royalist critics would have one believe, for after all the teacher is more important than the curriculum.

Beginning of the Modern Secondary School System.

The law of May 1, 1802, completely reorganizing the scheme of public instruction, substituted thirty lycées for the central schools that were then in existence, and thus laid the foundation of the modern system of secondary instruction that we find in France to-day. This same law defines very clearly the exact significance of the term "secondary school." "Every school established by the communes or conducted by private individuals wherein are taught French, Latin, the first principles of geography, of history, and of mathematics, will be considered as a secondary school." This, then, gives us the origin of the communal college. The lycées and the special schools supported from the State treasury formed a class of institutions somewhat higher than these secondary schools, and to-day the lycées still retain their superiority to the colleges in public,

[1] LACROIX, *Essais sur l'enseignement en général, et sur celui des mathématiques en particulier*, p. 129, n.

[2] PICAVET, *Les idéologues, essai sur l'histoire des idées, et des théories scientifiques, philosophiques, religieuses, etc., en France depuis* 1789, pp. 37–66.

esteem, in the remuneration and position of the instructors, and in the character of their work. According to the terms of that law, the lycées were essentially devoted to instruction in Latin and mathematics. While this new law was generally acceptable to Napoleon as consul, it was not at all satisfactory from the imperial point of view. Carried away with his zeal for organization and possessed with the idea of centralizing even the educational administration of the nation in his own hands, he established the University of 1808, and reorganized the secondary school system in accordance with this new plan.

The opening sections of the organic decree of 1808 leave no uncertainty in the mind of the reader as to the centralizing notion embodied there. "Public instruction throughout the empire is confined exclusively to the university."[1] As we read on, we find that no school might be opened without the sanction of the grand master, nor might anybody open a school or even teach in a school who was not a graduate of the university. The educational hierarchy was thus very carefully built up. When one recalls further that the grand master was practically an absolute monarch in the educational world, and that he could be appointed and removed at will by the emperor, the extent of the centralization in this new plan is at once apparent. And these absolute powers extended from the appointment of the general inspectors down to appointment of the scholarship holders in a lycée, or granting permission to open a primary school. This organization, which was practically that of a civilian army under full military discipline, reproduced almost exactly the idea put forth by Rolland about forty years before, that all degrees of public instruction should be subordinated to a single government authority. This same general plan still exists in France, but the schools to-day are considerably removed from the stultifying uniformity which prevailed throughout the major part of the nineteenth century.

Extreme Centralization.

[1] *Décret*, Mar. 17, 1808, Title 1, par. 1, *Recueil*, IV., p. 1.

From the point of view of the curriculum these new lycées reproduced even more closely the pre-Revolutionary conditions than did the first lycée of 1802. They had a six-year course, subsequently extended to seven,[1] with Latin and French running parallel throughout the first five, and Greek in the second, third, and fourth years. In the last year, the instruction in philosophy might be given optionally in either Latin or French. History, with the merest modicum of geography, chronology, and mythology, is again in evidence. The scientific tendency, which had been very prominent throughout the deliberations of the Revolutionary bodies, is beginning decidedly to lose caste, for instead of the six years devoted to mathematics and science in the first lycée program of 1802, we now find that the scientific subjects occupy only one whole year and parts of three others. Five years later, these same scientific branches have entirely lost their independence and have had their identity submerged in the traditional classical program.

The Curriculum.

Evidently the transition from the old régime had been too rapid. It requires a long period to change the ideals of a nation, and the change brought about by the Revolutionary government had come all too quickly. In the first exuberance of their victory the new leaders had reacted widely against the old conditions, and through the political numbness akin to that that follows a sudden severe shock to the nervous system, this change had prevailed. But now the old blood began coursing through the veins again. The old life reasserted itself. The old institutions reëstablished themselves, as much as the changed outward conditions would allow. Some years previous to this time, upon coming away from Notre Dame on the Easter Sunday when the Concordat was published, Napoleon is said to have remarked to some of his generals:

Reëstablishment of the Old Régime.

[1] With the addition of the eighth and seventh classes preparatory to "grammar" in 1810, the course was practically lengthened to eight full years before beginning the work specifically denominated philosophy.

"Is it not true that to-day the old order seems to be revived?" "Yes," replied one of them, "except for the two millions of French people who died for liberty and who cannot be revived." So we find a wide-spread clamor for a return to the study of the ancient languages. That dominance of the sciences had been merely transitory. But it was the foreshadowing of subsequent tendencies, whose substantial realization has only recently been consummated in France in the changes in the secondary school program that have but lately been completed. In the same manner, the Revolutionary government foreshadowed the separation of Church and State that has just been effected, an event that Napoleon by that very Concordat succeeded in delaying for almost exactly one hundred years.

In restoring the old order of things, Napoleon stamped the impress of his own character on the discipline of the schools. It was essentially military throughout. The pupils were divided into companies of twenty-five, and over each were placed a sergeant and four corporals; the signal for all the exercises was given by drum tap; and the internes were forbidden to appear outside the walls of the lycée except in full uniform. As a matter of fact, they were not allowed to lay aside any part of their clothing, even during the recreation period, without the permission of the sub-master.

Military Discipline.

The subjoined figures[1] will give some indication of the extent of the devastation in the field of secondary education worked by the Revolution and the succeeding years of uncertainty. Under the Empire these schools seemed in a fair way to recover their former prestige when suddenly the fall of Napoleon dealt them such a blow that the lycées did not recover until just before the Revolution of 1830, and the communal colleges for more than a dozen years later than that.

Effect of the Revolution on Secondary School Attendance.

[1] VILLEMAIN, *Rapport au roi*, 1844, pp. 77, 84, 95.

COMPARATIVE NUMBERS OF SECONDARY PUPILS 1789–1842

	1789	1809	1813	1842
Number of pupils in the colleges . .	72747			
Number of pupils in lycées or royal colleges	....	9068	14492	18697
Number of pupils in communal colleges	....	18507	29559	26584
Total number of pupils in lycées and colleges	....	27575	44051	45281

It is only fair to add that if the number of pupils in private and boarding schools were included, the total number of those receiving secondary instruction in 1842[1] would have approximately equalled that in 1789.

Retrogression under the Restoration.

Although Louis XVIII. allowed the university to continue, the years of the Restoration can hardly be looked upon as other than a period of retrogression. The lycées took the name of royal colleges, which they retained until the Revolution of 1848. The influence of the ecclesiastical power became more and more prominent. By an order of 1802 each lycée was required to have its own chaplain. In 1809 the priest was ranked with the professors of the first class, while in the Statute of 1821, he was put on equal footing, both as regards position and salary, with the *censeur* or sub-master. The bases of education in the colleges were specifically stated to be "religion, the monarchy, the legitimacy, and the constitution," and the bishop was given the right of supervision over religious instruction in all the colleges of his diocese. For the first time, the official regulations made a specific

[1] KILIAN, *Tableau de l'instruction secondaire en France*, p. 325, gives this latter figure for private and boarding schools in 1840 as 30,482.

assignment to religious instruction, and the Scriptural reading in the preparatory classes was to be in French, in the sixth to the third inclusive, in Latin, and in the higher classes in Greek. Although the course in philosophy was lengthened to two years (and had to be conducted in Latin), later in the same year, 1821, the completion of only the first year's work was required for admission to the candidacy of the baccalaureate in letters, and the second year of the philosophy course was given over to mathematics and science.

Subsequent Reaction.

The retrogression during the early years of the Restoration period was followed by a reaction toward its close, and in one respect, at least, it marked a great step in advance. This latter was the creation in 1828 of the office of the Minister of Public Instruction whose incumbent was also Grand Master of the University. While educational affairs have not progressed uninterruptedly since that date, nevertheless this innovation recognized the fact that the educational interests of the nation were worthy to be ranked with the other great departments of the public service. Furthermore, the instruction in sciences was brought up to that in letters; the standard of qualifications of the teaching body was raised; modern languages, which since 1814 had been optional subjects on a par with dancing, fencing, and music, and paid for by the parents as extras, were made a part of the regular instruction in the royal colleges; the course in history was lengthened to five years after the preparatory classes; and the philosophy was once more taught in French.

The Work of the July Monarchy.

The July Monarchy, which came into power under Louis Philippe in 1830 and was the outcome of a more liberalizing tendency in the political world, early applied itself to the development of public instruction, but the great expansion that took place here was almost exclusively confined to the field of primary education. The elementary school law of 1833 marked M. Guizot's effort to establish the system of higher primary schools. Throughout the period, however, there was a con-

stant struggle between the university and the Catholic party wherein the latter sought to establish the parity between its own ecclesiastical schools and the royal and communal colleges. Indeed, the strife was strongly suggestive of that between those same two antagonists in the days of the old Jesuit college of Clermont-Louis-le-Grand, and under the reaction of 1850 the university was worsted much as she had been in her earlier contests.

The ministry of M. Villemain (1840–1844) is noteworthy for the publication of the first report on secondary instruction in France. Napoleon had ordered such a report many years before, but for some inexplicable reason his directions had not been carried out, and under the Restoration there was probably no eagerness to bring out comparisons that could hardly have reflected credit upon the government then in power. Under Louis Philippe, in 1831, the task had been undertaken for primary education, and now some twelve years later under the same general auspices it was completed for secondary education. The figures already quoted[1] show that in point of attendance the secondary schools have barely recovered the ground they lost at the time of the Revolution. Although few of the advanced ideas of the most progressive leaders of the Convention are still to be found, yet the curriculum is far ahead of that under the old ante-Revolutionary order. But according to the notions of M. Villemain, secondary instruction could never have more than a limited extension. "Distinct from elementary instruction, even on those very points wherein the two seem to resemble each other, and furthermore having a direction and an extent entirely different, secondary instruction includes the study of ancient languages, of literature, of mathematical and physical sciences, which ought to prepare for the learned professions, for great intellectual accomplishments, and for the principal occupations of society. It is intended particularly for those whom the sacrifices of their families or the liberality of State

Villemain's Report on Secondary Education, 1843.

[1] *Cf. supra*, p. 70.

or community put in position to devote themselves to study not only throughout their childhood, but during those years of youth which in other walks of life are devoted to remunerative labor." [1] "Fundamentally it is the ancient system of Port-Royal and of the University of Paris, the system which for two centuries has produced so many able and enlightened men for the bench and for the business world. . . . Besides that dominant study of the ancient languages, particularly useful for exercising and ripening the mind, the instruction in history has been strengthened, and variously graded classes in mathematics have been maintained, some preparatory, some advanced and complete. At the same time, the instruction in modern languages has assumed a more regular form which reinforces rather than antagonizes that of the classics." [2] Even at that time complaints were coming in about the overcrowded program of the colleges. In 1833 half of the secular holiday in each week was taken for regular work. M. Villemain, in commenting upon this, said: "The (school) day in its course of more than fifteen hours [3] is so filled with various occupations that one might fear it was overcrowded. But thanks to that very variety and to that exactness of discipline, never was the health of the children better, nor their work less fatiguing." [4]

As has already been suggested, the reaction of 1850 dealt some heavy blows to the cause of education in France. It not only opened the way for the entrance of political influence into school administration, but the former university standards with reference to academic fitness for teaching and the power of inspection over private schools were seriously undermined. It was, so to speak, the last effort of the Church to maintain itself on an equality with the State as regards educational affairs in a struggle which has gone on

Temporary Ascendancy of Ecclesiastical Influence.

[1] VILLEMAIN, *Rapport au roi*, Mar. 3, 1843, p. 5.
[2] *Ibid.*, p. 18.
[3] This was essentially the same that prevailed in the time of Villemain.
[4] *Ibid.*, p. 20.

more or less consciously ever since the founding of the University of Paris. This last triumph of the Church, however, was comparatively short lived. Thirty-two years later saw the loss of the power of control over public primary schools, and the abrogation of the Concordat and events of the last five years have completed the defeat. The State is now absolute and unique in its share in and its control over the educational interests of the nation.

The "Bifurcation" in the Lycée Course.

With the advent of the Second Republic in 1848, the old royal colleges resumed the name lycées (which they have retained ever since), and four years later their curricula underwent a complete reorganization. There were three well-defined divisions of the course: an elementary or preparatory division of two years, a grammar division of three years, marked by the dominance of the classics, and like the first division required of all the pupils; and an upper division where there was a "bifurcation" in the course, the pupils being compelled to choose at the outset between letters and science. As far as the general subjects of instruction are concerned, there was apparently not much difference between these courses, but a careful study of the programs[1] shows very clearly that this bifurcation meant almost an absolute choice between these two great areas of human knowledge, for the scientific branches in the letters section were treated most superficially, and the same was true, though perhaps to a less marked degree, of the literary subjects in the science section. The latter pupils, who up to the fork in the course had pursued Greek with their fellows in the other section, suddenly broke definitely with that language after having studied it for two and a half years, a period but little more than enough to master the elements. This division of courses led to invidious comparisons between the two groups of pupils, and the charge was undoubtedly true that opportunity was thus offered for the unsuccessful pupils in letters to abandon the work that they had found too difficult for them, and thus the

[1] *Programmes du* 30 Août, 1852, *Recueil Fortoul*, I., pp. 116–211.

see p 413 for full title

less able ones were precipitated into the science section. A sudden relaxing of rigid restrictions is very likely to cause a reaction of this sort. A little time is needed to bring about the proper adjustments. The same result happened with us in the United States at the time of the rise of the scientific schools, and again with the opening of the business and manual courses in our high schools. Under this divided course system, boys were compelled to choose their future careers, practically irrevocably, at the end of the fourth form, in other words, when they were about fourteen years old. The literary course, which led to the baccalaureate in letters (corresponding fairly closely to the bachelor of arts degree in the old American college during the ascendancy of the classical studies and before the elective system came into vogue), was required for entrance to the normal school, and to the arts and law work in the university, while the course in science, which led to the baccalaureate in science (corresponding to a general bachelor of science degree, if one may use such a term, based upon mathematics, mechanics, physics, chemistry, natural history, and drawing), fitted for entrance to the courses of the faculty of science and the medical school of the university, to the scientific division of the normal school, and to the higher government technical schools.[1] Indeed, the previous insufficiency of the preparation afforded for this latter class of schools was largely responsible for the introduction of this bifurcated course. Nevertheless, this radical change, which is generally looked upon as a decided loss, was a severe shock to the spirit of classicism, which even today is the dominating force in French secondary and higher education, and the return to the former conditions which Minister Duruy brought about in 1864 furnished welcome relief to the troubled situation.

Yet under the reorganization at that time, the old humanistic training of the lycées was becoming less jealous of its prerogatives, for it gave way to a more liberal course in science, a more extended course in history, and showed clearly a grow-

[1] *Décret*, April 10, 1852, Arts. 3 and 12. *Recueil Fortoul*, I., pp. 40, 43.

ing emphasis upon modern languages. After all, the experiment of the "bifurcation" had not been in vain. The baccalaureate in letters came as before at the conclusion of the philosophy form; successful completion of another year, called elementary mathematics, gave the additional degree of bachelor of science, and constituted the natural preparation for the military school at Saint-Cyr; while still a further year, called special mathematics, was necessary for entrance to the Polytechnic School. Under exceptional circumstances, certain modifications could be obtained in this course, but the arrangement here outlined was the ordinary method of procedure. Consequently the pupil was no longer compelled to choose between letters and science at an age when it was entirely doubtful whether or not he could select his life career with any degree of certainty, and thenceforth the unfortunate longitudinal cleavage in the lycée course was a thing of the past.

Restoration of the Old Course.

At the same time opportunity had to be found for the expansion of that mechanical and industrial spirit that dates from the second third of the nineteenth century. The leaders of the Convention had incorporated this idea in the program of the Central Schools, but these schools had not survived the change of empire. An attempt had been made at the royal college of Nancy (1829) and later at Versailles and la Rochelle to inaugurate a somewhat similar kind of professional training. Under the "bifurcation" of 1852 this instruction had been introduced into nearly all the lycées outside Paris, and had been adopted by practically all the communal colleges. The reports of industrial development and consequent modifications in the educational systems that had been coming from abroad[1] were sufficiently disquieting to indicate that France

"Special" or "Modern" Secondary Instruction.

[1] *Cf.* COUSIN, *Mémoire sur l'instruction secondaire dans le royaume de Prusse pendant l'anné* 1831.

MARGUERIN et MOTHERÉ, *De l'enseignement des classes moyennes et des classes ouvrières en Angleterre*, 1864.

BAUDOIN, *Rapport sur l'état actuel de l'enseignement spécial et de l'enseignement primaire en Belgique, en Allemagne, et en Suisse*, 1865.

must recognize that a new world was in the making, and she must put forth determined and definite efforts to keep pace with the march of events. Consequently a new departure was made in scientific teaching, and a course was organized under the name of "special secondary instruction." It was not professional education on the one hand, neither was it an extension of primary education as contemplated in the then defunct higher primary schools of M. Guizot, but its object was to supply the leaders of the great industrial army, just as the higher primary schools of a few years later were to provide the under officers, and the lower primary schools the rank and file of this same civilian army. This new departure in secondary education was intended to establish that broad basis of general scientific knowledge, without in any sense becoming professional, which is indispensable for the leaders in the commercial, industrial, and financial world. It was, nevertheless, a complete education, "an education of another nature than classical education, but not of another order," [1] and, furthermore, the official program was sufficiently elastic to enable it to be adapted to serve the particular interests of the community in which the school was placed. For example, special attention would be devoted to geography and commercial law in the great maritime cities, to metallurgy or agricultural chemistry in the districts given over to mining or agriculture, to design in the lace or cotton centres. In a word, this special secondary instruction was intended to supply the place filled by the *Realschule* in Prussia. Although a new normal school was opened in 1866 exclusively for the preparation of teachers for this form of secondary instruction, the latter was not organized as in Germany in a special category of its own. Consequently it is perhaps true that it suffered from not being segregated and from not having a teaching force from top to bottom ardent partisans to support it in the inevitable struggle against classic training. Be that as it may, for the first years it was looked upon quite as an interloper in the lycées and colleges, and was unquestionably

[1] GRÉARD, *Enseignement secondaire*, I., p. 78.

on a considerably lower plane than the classical work with which it was competing. In 1881, however, the former certificate which crowned the work of the course was replaced by a baccalaureate of special secondary instruction, and ten years later the whole course was considerably modified. At that time even the name was changed, and for the next decade it was known as "modern secondary instruction." The vicissitudes of this science instruction in the secondary schools mark the progress of the struggle between the scientific and the humanistic spirit. Although practically coming into the social life with the Renaissance, the former did not make itself seriously felt in the secondary school until the period of the Revolution. In this new program of 1891, it was still subordinate to the classical training, although more and more careers under the auspices of the State were opening up before its graduates. The latest legislation, in 1902, however, finally established the parity between these two disciplines, at least as far as official regulation could do so, and to-day the course in letters and the course in science extend side by side with the most liberal opportunity possible of passing from one to the other.

From the beginning of the Third Republic to the entire reorganization of the whole scheme of secondary instruction that occurred in 1902 and the period immediately following, the reforms of classical instruction have been along three lines: (1) in cutting down an enormously overcharged program; (2) in greater emphasis upon the importance of the physical side of education; (3) in improved methods of work. The first two of these are really phases of the same general tendency. The average number of hours of class work per week from each of the classes from the eighth to the philosophy forms inclusive was reduced from nearly twenty-six in the program of 1874 to a little less than twenty in that of 1890. There was furthermore a well defined tendency toward a sloughing off of old methods;

Tendencies of Classic Reform during the Third Republic.

the modern languages began to be taught more particularly from the point of view of speaking, and the classics from the point of view of reading. To that latter end Latin versification disappeared entirely, and composition work in the classic languages was greatly reduced. Latin and Greek were begun in the sixth and at the middle of the fifth forms respectively instead of in the eighth and the sixth respectively according to the program of 1874. Finally there has been a very definite division of the school course into three series or cycles: the elementary classes; the grammar classes; and the higher classes. This division was intended to serve the same purpose in the secondary schools as the concentric circle plan that prevails in the primary schools, and was established with the idea of giving the pupil who is compelled to leave school before the end of the course certain definite notions that he can carry away with him. While the school-leaving problem has attracted considerable attention and has caused no little uneasiness in France, nevertheless it has not reached the acute stage there that it has with us, in the primary school on account of the more efficient enforcement of the compulsory school law, and the greater commercial value of the leaving certificate, and in the secondary school because the tuition fee and the social prestige attached to this grade of school tend to make its pupils a selected class, and furthermore the baccalaureate is the only key that will open the way to a professional career and to numerous branches of the government service.

Secondary Education of Girls.

But of all the reforms in the field of secondary education that have been carried out under the Third Republic, the most significant has been the establishment of lycées for girls under the law of December 21, 1880. With the possible exception of the schools at Écouen and Saint-Denis, which Napoleon had founded expressly for the education of the daughters of his officers, whatever had been done up to this period had been undertaken either through individual initiative, or else in

the private institutions of the religious teaching bodies. At all events, in 1867, after the passage of the new law with reference to the establishment of primary schools for girls, in the words of the Minister of Public Instruction: "There yet remains one important thing to do: it is necessary to provide the girls with secondary instruction, which, strictly speaking, does not exist in France."[1] Consequently he recommended the creation of a series of extension classes to be held in the city halls or other public buildings and to be taught by the professors in the boys' lycées. This girls' secondary instruction was to include only a very limited number of subjects drawn from the new program of the boys' special secondary instruction (from which the dead languages were excluded), with altogether only one or two lessons per day extending over a period of three or four years. From the economic point of view, this was certainly a valuable suggestion, since the government was able to double the number of schools at no additional cost. The merely nominal running expenses aside from the remuneration of the teaching staff could be more than carried by the proposed tuition fee of fifteen or twenty francs a month, and a substantial amount would be left for free scholarships. But from the educational point of view its chief virtue lay in the fact that it marked the beginning of a radical departure in the traditional policy. The suggestion of Minister Duruy was taken up with alacrity, twenty-four such courses being established the first year. But the enthusiasm quickly ran its course, for in the following year the number of new foundations fell to ten. At all events, by 1879, only fourteen of the forty-seven courses that had been started were still in existence.[2] The movement cannot have made any very great stir in the educational world, for the statistics of secondary education published in 1876 contain no report at

[1] *Instructions aux recteurs*, 30 Oct., 1867, in *Circulaires et instructions officielles relatives à l'instruction publique, Ministère de M. Duruy*, p. 543.

[2] SÉE, *Rapport à la Chambre des Députés*, in *Lycées et collèges de jeunes filles*, p. 148.

all of the progress of the work, nor even do they make any mention of the experiment. Indeed, although there was a diploma for successful completion of the three years' work, it would have been rather surprising if success had come to such an adventitious undertaking, without special organization, without appropriate class rooms, without a regular teaching force of its own, without legislative sanction. But viewed in the light of subsequent developments, it cannot be considered as a vain and profitless experiment, for it paved the way for the establishment of a real system of secondary education for girls.

With the passage of the law of December 21, 1880, public state secondary education for girls, thanks to the efforts of M. Camille Sée, became a reality in France. Under the terms of this law, the secondary course, whether in a lycée or in a communal college, lasted five years, divided into two periods of three and two years respectively, and was open to pupils of twelve years of age and upwards. The studies of the first period were all required, but in the last two years only twelve or thirteen hours out of twenty were prescribed. On the whole the work corresponded fairly closely to the old English-modern language course that formerly existed in our American high schools. Save for the suppression of the single hour devoted to the optional study of Latin in each of the last two years, the increased emphasis put upon manual and gymnastic work throughout the course, and a natural improvement in methods, the program as it came through the last revision in 1897 is in all essential points substantially the same as it was originally. The detailed discussion will consequently be reserved for a later chapter.

Girls' Secondary Normal School.

Scarcely had these girls' secondary schools been provided for than the government took the only logical step possible and voted to create a secondary normal school in order to furnish the recruitment of the teaching force of this new class of schools. The bill, intro-

duced in the lower house March 3, 1881, declared "urgent," reported and adopted without discussion on May 14th, was finally passed by the Senate and became a law on July 26th.

The Third Republic and Education.

With the establishment of the higher primary normal school for young men in December of the following year, the government completed a period of enormous educational activity. Within less than three years and a half each of the ninety departments of the country, with the assistance of the State, had been required to provide adequate normal school training for the future teachers of both sexes for its boys' and girls' elementary schools, the State had founded two great schools to train the teachers for these departmental normal schools, had created a system of girls' secondary schools and crowned it with a normal school of its own, had recreated the system of higher primary education both in special schools of its own and in the extension courses (*cours complémentaires*) attached to the lower primary schools, and finally had passed those two great fundamental laws providing for universal compulsory elementary instruction, and declaring that in the primary schools of every order, the instruction should be not only gratuitous, but furthermore absolutely free from all ecclesiastical control. This is a series of educational achievements that stands without a parallel in history, at least within the same length of time, and it has enabled France to rise from a position of mediocrity in the educational scale to a place in the very front rank among the nations of the world. During the period of the Third Republic, the budget of the Ministry of Public Instruction has increased from thirty-two millions of francs in 1870, to a little more than two hundred and seventy-one millions[1] in 1908, and the marked decrease in

[1] This takes no account of the millions spent by the towns and cities all over France, for which no accurate figures are available. Yet large as these figures may be they are quite overshadowed by the budgets of the army and

illiteracy from twenty-five and thirty-seven per cent for men and women respectively in 1870 to four and seven-tenths per cent and seven and two-tenths per cent respectively in 1898 [1] gives convincing proof that this immense amount has not been expended in vain.

navy departments which fell a little short of eleven hundred millions of francs that same year. *Almanach de Gotha*, 1909, p. 799.

[1] *Annuaire de la jeunesse*, 1907, p. 22.

CHAPTER V

THE ADMINISTRATIVE ORGANIZATION OF THE SECONDARY SCHOOL SYSTEM

IN many respects the French secondary school system of to-day still retains some of the essential features of the organization imposed upon it by Napoleon a century ago, and not the least significant of these appears in its excessive centralization. This centralization, which has been at the same time one of its most characteristic peculiarities and one of its most striking defects, was severely scored more than once in the testimony before the parliamentary investigation of the Ribot Commission a few years ago.[1] This extreme centralization, however, is not unique in the department of the Minister of Public Instruction, but seems almost to pervade the national character, and it really results in a governmental centralization that is equalled in few other nations. The Napoleonic administration again is doubtless in no small means responsible for this condition of affairs, but it seems to present a decidedly anomalous situation for a republic. One must remember, however, that the French Republic is not a union of several independent states, as is the case in the United States, in Switzerland, and even in the modern German Empire, but it represents a homogeneous people subdivided into smaller units for purposes of administration. More important still is the survival of the monarchical ideas and ideals that are everywhere traceable. Indeed, it would require a fine discernment to differentiate the republican political and social life from that of a constitutional monarchy like Italy,

French Centralization.

[1] *Enquête sur l'enseignement secondaire*, Paris, 1897, 6 vols.

for example. More than one Frenchman has said that if, by some political reversal, there should be a monarch at the head of the State instead of a president, the external evidences would be hardly noticeable. The changes in government in France during the nineteenth century were essentially political changes rather than social. The outward life of the nation still goes on as before. So centralization is not fundamentally distasteful to the French idea.

Viewed from the standpoint of civil and political control, and again that of educational direction, France presents two distinct systems of administration, though at several points these systems overlap. Politically the whole country is divided into ninety departments, each department being subdivided into arrondissements, each arrondissement into cantons, and each canton into communes. The departments correspond roughly to our states, the arrondissements to our congressional districts, and the communes to our towns or cities. The canton, which is merely a judicial district, the subdivision of an arrondissement, and of some slight bearing in the system of primary education, does not figure at all in the field of secondary education, and need not concern us further. The Minister of the Interior at Paris appoints a prefect over each department and a sub-prefect for each arrondissement, while local self-government is restricted chiefly to the election of the municipal council whose members in turn choose the mayor of the commune. Through the medium of the prefects and sub-prefects the general government thus reaches out directly to the far corners of the country.

Civil and Political Divisions.

Starting with the largest political subdivision of the nation, the departments, and grouping them in what was originally a more or less arbitrary fashion, we arrive at the academy, the largest educational unit. At the present time there are seventeen academies, each one nominally having a university of its own, and each one administered by a rector. For a brief period in the very middle of the last century there were as many academies as departments, each of these

with its own rector, but this arrangement, which was not of long duration, gave place in 1854 to the present scheme, most of the displaced rectors being retained as academy inspectors and made subordinate to the rector of the academy. These academies to-day vary in size from Paris with nine departments and approximately five and three-quarter millions of population to Chambéry with only two departments and under seventy-eight thousand inhabitants.

Three Degrees of Education.

At first sight the three degrees of education in France would seem to correspond exactly with the three degrees in America, for they follow a similar nomenclature, primary, secondary, and higher, terms that are perfectly familiar to us. It is this very similarity of terms that renders the deception more subtle, and a closer examination of the French system will dissipate some of our preconceived notions. The secondary and the primary systems are not superimposed one upon the other, but rather run along concurrently, for the primary system trenches upon what we call the secondary field, and the secondary system has extended its elementary classes down so that it is paralleling the work of the primary system. The new program of 1902 attempted to mollify this latter situation somewhat in changing the name of the tenth and ninth forms of the lycées and colleges to the first and second preparatory classes, in grouping the eighth and seventh forms together in the elementary division and beginning secondary instruction proper with the sixth form. Although there have been certain internal modifications, the change thus effected has been more apparent than real. At the same time an attempt was made to modify the parallelism between the two systems and to coördinate them so that the primary school course should form a regular preparation for the secondary school,[1] but this has thus far failed to realize the purpose of its sponsors. As a matter of fact, in most parts of the country comparatively few pupils pass from the

[1] *Décret*, May 30, 1902, Art. I., *Plan d'études et programmes d'enseignement dans les lycées et collèges de garçons*, 1907–1908, p. xxi.

primary school to the secondary school save the government scholarship holders who are selected by competitive examination. Although the latter vary in different sections, in 1906 they amounted to less than two per cent of the total secondary school population.[1] "The middle-class citizen puts his child in a lycée, not in order to make him a learned man, but in order that his son should not be in the same institution with the son of his servant or his *concierge*."[2] This may be a rather strong statement, but it contains a good bit of truth, and in the last analysis the motive that sends one boy to the primary school and his neighbor to a secondary school is fundamentally sociological. Just as in New York City, where certain peculiar economic and social conditions have brought about a somewhat similar situation, one boy goes to a private secondary school so called, and another to a public primary school, yet in the elementary classes the courses of study are largely the same.

What is Secondary Education?

This brings up the mooted question of the real significance of secondary education. Wherein is it differentiated from primary education below and higher education above? Formerly there was general agreement as to the connotation of secondary education: it unquestionably meant classical education. As the "modern side" subjects fairly broke into the secondary school, we began to weigh our earlier distinctions and to find them wanting. In France the distinction between secondary and primary has always been drawn along purely social lines. Between secondary and higher, originally there was no differentiation, and now it may roughly be expressed as the difference between cultural and professional, for the great majority of students in the universities to-day are pursuing purely professional courses. In America the distinction seems to rest solely upon a chronological basis. It would appear much more natural to express the difference in psy-

[1] STEEG, *Rapport sur le budget de l'instruction publique de l'exercice*, 1908, p. 73.

[2] BILLAZ, in RIBOT, *Enquête*, II., p. 107.

chological terms. As primary education is the education of the child, so secondary education is the education of the adolescent. Thus secondary education is not exclusively classical education, nor the so-called "modern education," and it is most ambiguous to define it as intermediary between elementary and higher education. It has a purpose and a content entirely its own, and the latter is, or should be, drawn from the subjects that are suited for the development of the adolescent mind. It may be linguistic, it may be literary, it may be scientific, it may be social. It certainly must be ethical, and it must be real.

The French Secondary School.

In France, as was suggested above, the field of secondary education is marked off by social boundaries. However contradictory this notion has been to the principles of democracy, the authorities have striven in vain to overthrow it. Formerly the conservative influence was the hierarchy of the Church, now it is the hierarchy of the professions and of functionaryism. The French secondary school occupies a unique position among the secondary schools of the world, for it is really complete in itself. It is neither dependent upon the primary school as a source of supply, for it has its own elementary classes where the rudiments are taught, nor does it necessarily send its pupils to the university, for it provides a liberal education within its own walls, and the possession of the baccalaureate opens the way for entrance to the government military and naval academies, the engineering schools, the normal school, and to certain preferred appointments in the post office and the interior departments, be it remembered, however, in every case only after competitive examination. As M. Bréal pointed out some years ago, "While in England and in Germany one is not considered a man of letters unless he has passed through the universities, for which the colleges are the preparation and the vestibule, with us one's studies are generally deemed complete when one has finished the last year of the lycée. After that there is nothing left but to enter upon a definite

career."[1] For American readers M. Bréal would probably have said "to enter upon the preparation for a definite career," for every year thousands enter upon their professional preparation for law, medicine, and pharmacy. It is still true that the chief function of the lycée and the college is to prepare students especially for the great government military, naval, and engineering schools, for the normal school, and for distinctly university faculties of arts, sciences, law, medicine, and pharmacy. It is absolutely impossible to find out the proportion of students that complete the secondary school who do not carry on their studies farther, but the estimates of various secondary teachers vary from "one third" to "very few." The latter approximation is probably nearer the truth, and it is safe to assume that in the main these "few" represent the boys that have failed in the competitive examinations for admission to the higher government schools, and are inferentially the weaker students.

Minister of Public Instruction.

The whole system of public education in France is put under the charge of the Minister of Public Instruction and Fine Arts. With the lack of national control that prevails in the United States we find it difficult to realize the extent of centralization that exists in France, as well as the multifarious responsibilities that devolve upon this Minister of Education. Suffice it to say that not only is he the head of the three degrees of education, but he also directs the Department of Fine Arts, several French schools abroad, the Bureau of Longitude, the various astronomical observatories, the National Library, and scientific missions abroad. The budget of his department for 1908 carried an appropriation of 300,000 francs for the expenses of an expedition to the South Pole.[2] The Minister of Public Instruction is a cabinet officer, and consequently owes his appointment to the President of the Republic. The bureaucratic organiza-

[1] BRÉAL, *Quelque mots sur l'instruction publique*, p. 156.

[2] *Rapport de la commission du budget*, 1908, sec. i, p. 242.

tion of the portfolio, however, prevents the political character of the office, with the constant danger of sudden changes of ministry, from reacting harmfully upon the schools. During the thirty-eight years of the Third Republic, there have been thirty-seven ministers in power, although the five changes that have occurred since 1898 have been rearrangements of the portfolios rather than distinct party mutations. The traditions and the general policy are thoroughly secured by means of the numerous bureaus that in reality take care of the greater part of the business of the department. Save for a few of the higher educational officers who are named by the President of the Republic, the Minister directly or indirectly holds the power of appointment and removal over all his subordinates in the educational system. There are nevertheless sufficient safeguards so that no faithful officer may be unjustly discriminated against. The Minister is thus held responsible for the working of his department, and for the execution of the *lois* of the parliament, and the *décrets* of the President. The general regulations of his office in elaboration and application of the foregoing *lois* and *décrets* are known as *arrêtés*, while his special communications to the rectors and prefects for the purpose of clearing up any uncertainty as to the interpretation of the above or in dealing with minor regulations of the service are issued under the name of *instructions*.

To guide him safely through the legal difficulties of the questions that may arise, the Minister has a kind of personal cabinet of lawyers, known as the *comité du contentieux*. This body, sixteen in number, has purely advisory functions, and the Minister is under no obligation to consult it, or even to adopt its conclusions after he has consulted it. Composed, however, of eminent lawyers, it renders valuable aid to the Minister who, pressed as he is on all sides, must depend largely on the counsel of his subordinates.

Committee on Litigation.

Reference has already been made to the bureaucratic organization of the educational system. There are in all

thirty bureaus under the control of the Minister of Public Instruction, and of these seventeen are concerned with strictly educational affairs, distributed as follows: cabinet of the Minister, one bureau; higher education, five bureaus; secondary education, five bureaus; primary education, five bureaus; and accounts, one bureau. The others are divided among the departments of fine arts, finance, the archives, and public buildings. Each of the three divisions of the educational system is under the control of a director, and these men are the real executive heads of the system. They are all conspicuous for their educational qualifications, for they have gradually made their way up the line, and promotion in France is slow, but merited.

Bureaus.

The five bureaus under the director of secondary education are occupied respectively with: (1) inspection, curricula, programs, and discipline of secondary schools for boys and girls, examinations and scholarships; (2) teaching force of the boys' lycées; (3) bursars, and financial administration of the boys' lycées, construction of boys' secondary schools; (4) teaching force and financial administration of the boys' communal colleges; (5) teaching force, financial administration, and construction of girls' secondary schools. These bureaus were all reorganized a few years ago, so that they now represent a more logical and systematic division of function. When we remember that even the minutest details of all the lycées in France and Algeria are regulated from the office of the Minister in Paris, we begin to realize what an immense amount of work there is to be done there.

Direction of Secondary Education.

In educational circles, at least, France has developed the functions of the advisory council far ahead of us in America. The tendency with us for many years was to administer educational affairs through committee control; when that failed we turned to one man control; and we are but now coming to appreciate the advantages of the dovetailing of these two systems.

Superior Council.

In France, the Minister of Public Instruction has his superior council, and his consulting committee of public instruction, while the rector has his university and his academic[1] councils. At the present time the superior council (*conseil supérieur de l'instruction publique*) consists of fifty-four members, the majority of whom are elected by their peers. They are drawn from every department of public instruction and form a body of men peculiarly qualified to handle intelligently the important questions that come before them, for they are in active contact with the departments of work which they represent. Aside from the nine members representing public instruction and the four representing private institutions that are appointed by the President of the Republic, they are all chosen by the teaching force in the various departments of higher, secondary, and primary[2] instruction from among their own colleagues. There are ten representatives of secondary schools; one for each of the eight orders of agrégés and two for the communal colleges. Such is the constitution of this council that whatever educational discussion may come up, there is at least one member that is vitally interested in its solution. If, for example, the question of cutting down the time for history in the lycées is broached, the delegate of the history teachers is on the ground and can protect the interests of his own subject; if there is any attempt to alter the curriculum of the ordinary primary schools, there are six representatives at large to speak for the primary school interests. It may be worth noting, however, that the representation on this council from top to bottom is directly proportional to the academic rank of the work in question and inversely proportional to the number of individuals involved. That is to say, the members of the Institute, which is a comparatively small body, have five representatives, while the primary schools, whose teachers are counted by the scores of thousands, have only six representatives, and these are

[1] *Academic* here signifies belonging to the academy, in its technical sense.

[2] The suffrage in the primary system is decidedly limited. *Cf. infra.*

chosen from among and by the principals of the primary normal schools, and all the various inspectors that are attached to the primary system.

This council has only two regular meetings per year, the bulk of the work being put into shape for the consideration of the full body by a sub-committee known as the permanent section. The nine presidential appointees together with six other members chosen by the Minister make up this permanent section. Among its duties are: (1) to study the programs and the regulations before these are submitted to the whole council; (2) to give advice on the creation of faculties, lycées, colleges, primary normal schools; on the foundation, change, or supervision of chairs; on books which ought to be kept out of the public schools as texts, as library books, or as prizes; and finally on all questions of studies, administration, discipline, and school affairs in general, that the Minister may refer to it.

The powers of the council are administrative, judicial, and disciplinary. The Minister may consult the council on any matter he chooses, but upon the more vital questions of programs, methods of instruction, conduct of examinations, and administrative and disciplinary regulations that apply to the public schools, he can make no valid regulation without first submitting the question to them for discussion, and he is obliged to follow their recommendations.[1] The jurisdiction of the council also covers the questions of the general regulation of examinations and the conferring of degrees; it decides upon books, whether texts for general reading, or as prizes, that should be excluded from private schools as being contrary to good morals, the Constitution, and the law; it passes upon the applications of foreigners to teach in, to open, or to direct a school. The council is furthermore the final court of appeal against the judgments of the university, the academic, and the departmental councils in matters of contention or discipline. The acts of the

[1] *Loi*, Feb. 27, 1880, GRÉARD, *La législation de l'instruction primaire en France*, V., p. 129.

council are issued in the name of the Minister, but with the legend corresponding to our "with the advice and consent of the council."

Consulting Committee.

The consulting committee (*comité consultatif*) is a body whose functions, like those of the committee on litigation, are purely advisory. In reality it consists of three separate committees representing each of the three degrees of education. The secondary section is made up of the general inspectors of secondary schools, the general inspector of modern languages, the vice-rector of the Academy of Paris, the director of the higher normal school, and the director of secondary education. This section is not kept so busy as the primary section, for the former's functions are practically confined to advising the Minister on changes, promotions, and other questions affecting the teaching force of the secondary schools, but when one remembers that this body in the boys' lycées alone is considerably more than five thousand strong, even this is no small task.

Work of the Minister.

Surrounded as he is by advisory boards, the French Minister of Public Instruction would seem to have little opportunity for the exercise of his own initiative. There is more or less truth in this criticism, but it requires a remarkable man to do more, and since the days of Victor Duruy and Jules Simon there have been few such. The Minister is essentially a politician in the better sense of the word. He is chosen not for any peculiar fitness for, nor for any particular interest in educational affairs, but primarily for the strength he will bring to the cabinet. When he has done that for which he was chosen, when he has defended the government on the floor of the senate or the chamber, when he has fought for his budget in the deliberations of the cabinet and later before the parliament, when he has presided over the numerous bodies of which he is president, when he has made the scores of speeches at political and other gatherings that are demanded of him, and when he has performed the thousand

and one duties that devolve upon him, he may be excused if he follows the advice of his counsellors and mechanically approves the papers that are put before him for his signature. It is one of the weaknesses of the French administrative system that too much of the time of the higher officials is taken up with petty details that might just as well be performed by trustworthy and qualified subordinates.

By means of the general inspectors, four for science, seven for letters, three for modern languages, and two for accounts, the Minister is able to keep in reasonably close touch with the progress of secondary education throughout the country. On account of the multitudinous routine duties that he has to perform, this is unfortunately done in a more or less perfunctory fashion. These general inspectors are men of a high order of intelligence and ability, but under the present practice they are left to work somewhat alone. Under Minister Duruy there was a very definite attempt to unify the work of these inspectors.[1] He called them together every fall before they left on their tours of inspection and gave them specific directions for the work of that particular year. Since his time, however, the custom has been more honored in the breach than in the observance. It is rather unfortunate that this is the case, for with only fourteen inspectors and about four hundred and fifty schools to be visited at least once each year, no one institution can receive much attention. The frequent changes of district, it being the policy not to have an inspector visit the same schools more than two years in succession at the most, render the need of careful direction all the more acute, for the inspector is thus unable to carry out any systematic policy for improving the effectiveness of the teaching corps. Nevertheless, it must be admitted that the teachers with whom these inspectors come in contact are on the whole an unusually efficient set of individuals.

General Inspectors.

[1] LAVISSE, *Testimony before the Parliamentary Commission*, in RIBOT, *Enquête*, I., p. 35.

Leaving the central authorities at Paris we come to the rectors, one for each of the seventeen academies. The rector necessarily holds the doctor's degree, and he is appointed by the President of the Republic on recommendation of the Minister. The latter is the titulary rector of the Academy of Paris, the actual duties being performed by an official known as the vice-rector, although the importance and the responsibilities of this latter are far greater than those of the heads of the other academies who bear the title of rector. The rector is the chief officer of all the educational institutions of his academy, responsible for the proper functioning of the most remote primary school as well as for directing the work of the university that is situated at the academy seat. In the main the faculties engross the major part of his personal attention, the secondary schools being turned over to the academy inspectors, and the elementary schools to the primary inspectors who are under the immediate direction of the academy inspectors. By means of monthly reports to the Minister, the rector keeps the latter in close touch with the local educational situation, and in case of difficulty he asks for specific instructions. He is the medium of communication between the Minister and the public schools. All the ministerial circulars are addressed directly to the rectors and are transmitted by them through the academy inspectors to the proper lower authorities. Even the humblest servant of the educational system has the right to address a communication to the Minister, but in every case it must follow the line of the educational hierarchy, and the response will retrace the same devious path. Every year the financial reports with the proposed budgets for the ensuing year for the various public institutions of superior or secondary instruction are sent to the rector and he transmits them with his comments to the Minister. The rector is president *ex officio* of the administrative board of each lycée and college in his academy, and he has the entire power of appointment and removal over the probationary tutors of these schools. He is required to visit,

Rector.

either at first hand or else through the medium of the academy inspector, the private schools of his academy once a year, but this inspection is limited to the fields of hygiene and morals. The diversity of the work, covering the whole gamut of educational activity from university president to city school superintendent, is thus seen to make large demands upon the rectors, but they are all picked men, chosen alike for intellectual attainments and executive ability, and in the main they acquit themselves well of their tasks. The rector is able profoundly to influence the effectiveness of the whole school system. If he is a progressive man that is willing to accept new ideas, or better still if he is fecund enough to originate them himself, the educational activities of the academy expand beyond the ordinary old-time limits of schoolroom influence. As instances of this progressive spirit, one might cite the summer course that has been given for the last few years in Paris for gymnastic teachers, and the lectures on puericulture and infant hygiene that were inaugurated last year (1908) in the Academy of Lille. In this latter academy, the schools will average up well with those of Paris, if, indeed, they do not surpass them in some points.

Reference has already been made to the fact that each of the higher administrative officers of the school system has his advisory councils. The rector has two, the university council and the academic council. The attributions of the former are restricted to superior education; hence they need not concern us further. The academic council, on the other hand, although formerly possessing jurisdiction over the three degrees of education, is now almost exclusively occupied with secondary education. In spite of its change of function, the character of the membership has remained substantially unmodified for nearly thirty years. The members are of three sorts, *ex officio*, elective, and appointive. The first of these include the rector, the academy inspectors, the deans of the faculties, and the directors of the higher schools

Academic Council.

or the preparatory schools for superior instruction;[1] the second, a professor chosen from among and by the regular teaching force of each of the above faculties or schools, two professors of letters and two of science representing the lycée, and one of letters and one of science representing the colleges, chosen under like conditions; the third, a head master of a lycée, a principal of a college, and two members selected from the general councils of the departments, and two from the municipal councils that contribute to the expenses of superior or secondary education,—all these six members receiving their appointments from the Minister. There are two interesting features about the composition of this council as contrasted with that of the superior council: first, that it contains no representative of primary instruction, and second, that it reckons among its membership four representatives from political life. The method of ministerial appointment, however, precludes the likelihood of these latter members being mere political workers, and it emphasizes again the influence of the centralized character of the educational system, suggesting that in many respects France is yet far from being a pure representative government. Representatives of the people are chosen, to be sure, but they are often as in this case "selected" representatives.

The powers and duties of the academic council with reference to secondary education within the academy are very similar to those of the superior council for all of France. They are administrative, judicial, and disciplinary. On the administrative side, they deal with regulations relative to lycées and communal colleges, with the budgets and the financial reports from these institutions, with all administrative and disciplinary questions that the Minister chooses to submit to it, and finally it reports annually on the public secondary schools, and the advisable changes to be instituted

[1] These two latter classes of schools embrace the superior schools of pharmacy, and of medicine and pharmacy, the preparatory schools for medicine and pharmacy, and the preparatory schools for higher instruction in the faculties of arts and science.

therein. In judicial and disciplinary matters, it pronounces the suspension of secondary teachers for more than a year with partial or total loss of salary, it revokes temporarily or permanently their right to teach, and it has power to authorize the opening of private secondary schools. The superior council is the final court of appeal in these questions. The council has two regular meetings per year, one just before the summer vacation, and the other just after the opening of the school year. At the first the reports of the previous year are examined, and at the second the budget for the next is considered. The precautions taken to shut out annoying discussions are interesting, and are rather typical of the educational procedure in France. At the opening of each session the rector distributes a schedule of the business to be taken up, and if a member wishes to submit a proposition for discussion he must send it in writing to the rector before the meeting. The latter refers it to the proper committee, and this committee reports to the rector whether the matter should be taken up immediately, should be postponed until a later session, or should be considered at all. Inasmuch as the rector is an *ex officio* member of each committee, he is thus a powerful factor in "guiding" the action of the council, and he has ample opportunity to kill a bothersome question in committee.

Academy Inspector.

Although by force of circumstances, the academy inspector is compelled to devote the greater part of his time to the primary schools, yet in the field of secondary education he is the personal representative of the rector. There are ninety-eight academy inspectors, at least one for each department except Haut-Rhin, which so far as secondary inspection is concerned is joined to Doubs. In the departments of the Nord and the Bouches-du-Rhône where the population is considerably congested by reason of the cities of Lille and Marseille, there is an additional inspector who devotes all his time to the primary schools, and has practically the powers and

duties of our city superintendent of schools. The corresponding inspector at Paris bears the title of "director of primary instruction for the department of the Seine," but his functions are so specialized that he can hardly be considered as an academy inspector. In this same department there are seven other inspectors who are under the exclusive authority of the rector, and two of this number are wholly occupied with public secondary schools. From the academy inspector down, the appointment of the personnel of secondary education rests with the Minister, but these positions are so fortified by examinations and service qualifications, that there is small chance of incompetents receiving the appointments, even if there were any desire to bestow them upon favorites. Theoretically the academy inspectors may be chosen from the executive officers or the upper grade teachers in the secondary schools, or from the primary inspectors, in either case with the additional requirement of the master's degree or ten years of educational service, but in practice the choice is made from the lycée teachers who are agrégés. Recent legislation[1] has attempted still further to assure the competence of the academy inspectors, for now nobody may receive a permanent appointment unless he has served for a probationary period of not less than two years. The effectiveness of this legislation will become apparent when the Minister refuses to make some of these provisional appointments permanent. There are those who doubt seriously whether this will be done. Experience alone can furnish the answer. As was stated above, in the department of secondary education the academy inspector is the right-hand man of the rector, inspecting for him, presiding for him at the meetings of the administrative boards of the lycées and colleges, sending him annual reports on the administrative officers and the teaching force of these schools, especially keeping him informed on the relations between

[1] *Décret*, July 10, 1906, WISSEMANS, *Code de l'enseignement secondaire*, p. 235.

the municipalities and the schools, and acting as a transmitting agent and general intermediary between the rector and the subordinate officers of the public school system in all official communications. The academy inspector really occupies one of the most important positions in the educational field. He reflects the policy of the rector and so of the central authority on the one hand, and yet in the exercise of his inspectorate duties he comes into personal contact with the rank and file of the teaching body, and is likewise in position to feel the popular pulse. It must be recognized that by spirit and training he is far more competent to deal with and improve the work of the secondary schools than to act as director of the primary schools, and it would seem as though the prevailing practice of choosing these inspectors from the teaching force of the lycées would not be for the best interests of the elementary schools.

Such is the administrative organization of the French secondary school system, essentially bureaucratic, and excessively centralized. Inasmuch as the Paris schools are taken as the standard, this centralization has been of immense assistance to the provincial schools, and it is certainly true that the extreme variation in the character of these French schools is far less than it is in the United States. To be sure there is more homogeneity among the French people than there is with us, and the degree of centralization that prevails there would be absolutely impossible on this side of the ocean, nevertheless it is perfectly patent that a wise amount of centralization, if it only established a uniform standard of teaching qualifications, would go far toward raising the general level of our secondary institutions. In France there is one standard for the same grade of teacher all over the country, the qualifications for the inspectors are everywhere the same, and these two things are significant forces in bringing about a uniform excellence of schools. It must be admitted, however, that this centralization has been carried to an extreme. Too little is left to the discretion of

Merits of the French Organization.

the head master and principals, for even the slightest details are regulated from Paris. The ideal would seem to lie somewhere between the excessive centralization of the French and the extreme decentralization of the American school system.

CHAPTER VI

THE ADMINISTRATION AND THE TEACHING FORCE OF THE SCHOOLS.

SHORTLY after the Revolution, the French national government assumed the responsibility not only of directing, but also of supporting institutions of secondary learning. It naturally established these in the larger centres of population. The more progressive of the smaller communities that were not able to secure a government school were encouraged to found similar but less pretentious schools at their own expense. The public secondary schools thus fall into two general categories, the lycées and the colleges. The former are state schools pure and simple, being established, directed, inspected, and financed by the central government or its accredited representatives. "The establishments of the same nature, founded and supported by the communes, under the surveillance and direction of the State"[1] are called colleges. In this latter case, practically all the expense falls upon the community, save for the assistance that may be given by the department, and the subsidies granted by the central government. The national budget of 1908 carried an aggregate appropriation of upwards of seven millions of francs for that purpose.[2] In 1907, there were one hundred and ten boys' and forty-two girls' lycées, and two hundred and thirty-two boys' and fifty-three girls' colleges.[3] Every city that wants a lycée must provide the site,

Classes of Schools.

[1] *Décret*, Feb. 25, 1860, Art. 1, *Recueil des Règlements relatifs à l'enseignement secondaire*, p. 27.

[2] *Budget général de l'exercice*, 1908. 1re *section*, p. 299 *et seq.*

[3] *Annuaire de la jeunesse*, 1907.

the building and the equipment, and assure the continuance of the funds necessary to their support. The State, however, looks out for the other running expenses. In order to establish a college, the community must do all this, and in addition must guarantee the salaries of the principal and the teaching force for at least ten years. In consideration of this agreement the State will often advance the money for construction purposes. Although these two classes of schools are nominally of equal rank, in practice the lycée is distinctly of a superior type. But there are exceptions to every rule and much depends upon the individual institution. For example, the two municipal colleges maintained by the city of Paris are probably far ahead of most of the provincial lycées, and in some respects they surpass even the lycées of the capital. In regard to the course of study and the method of the appointment of teachers, the colleges are subject to exactly the same restrictions as are the lycées.

Board of Government.

Each institution has its own board of government[1] with the rector, the academy inspector, the prefect or the sub-prefect, the mayor and the head of the school as *ex officio* members, and seven[2] other members, one of whom must be a professor in the lycée, appointed by the Minister for a term of four years. (In the case of a college, these appointive members are four in number.) The rector is the president *ex officio* of every board of government whether in a lycée or a college of his academy, but the academy inspector ordinarily has to take his place. The powers and duties of these boards are confined exclusively to the *externa* of the school affairs, questions of curriculum, interior discipline, and the personnel being specifically excluded from their deliberations. They inspect and direct the material administration of the

[1] *Décret*, Jan. 20, 1886, Arts. 1–13, *Recueil cit.*, pp. 29–35.

[2] The addition of a teacher in the school as a seventh member of the governing board was made in November, 1908. See *décret*, Nov. 25, 1908, *Bull. adm.*, 1908, II., p. 928.

schools, satisfy themselves by the personal visitation of their own delegates once a month that the hygienic condition and the nourishment furnished the pupils are up to the standard, and have general oversight of the installation and equipment of the buildings. They audit the accounts of the bursar, examine the budget proposed by the head of the school, and pass upon its provisions before transmitting it to the rector. The extreme centralization of the school system is again forcibly illustrated by the fact that the deliberations of the boards of administration of the communal colleges are effective only after they have been approved by the Minister on the recommendation of the rector. To Americans this would seem an unwarranted interference on the part of the central government, but it is mainly a precautionary measure, and serves to safeguard the standard and the efficiency of the communal colleges.

In each lycée there are three general administrative officers, the *proviseur*, or head master, who is responsible for the proper functioning of the school in all its departments; the *censeur*, or censor, a kind of sub-master who is in charge of the discipline of the pupils both in and out of the classrooms; and the *économe*, or bursar, a kind of combination chief steward, treasurer, and general financial agent of the institution. Since the reform legislation of 1902, all the new head masters have been *agrégés*,[1] save for a few promoted from among the censors, who, having reached their positions while a lower standard of academic qualifications prevailed, were assumed to have acquired a sort of vested right to advancement without being held to conform to the additional requirements. Unfortunately the head master is merely an administrative officer with little real power of his own. Most of his time is taken up with an enormous number of details, with furnishing information to his superiors, with examining the reports from all the pupils in the school which the censor

The Head Master.

[1] *Décret*, May 31, 1902, Art. 2, WISSEMANS, *Code de l'enseignement secondaire*, p. 164.

submits to him every morning, and with receiving visits from the parents. One of the parliamentary critics in 1899 declared that the head master was "a chief that had neither stability of tenure in any given lycée, nor powers, nor initiative; that he had only the semblance of authority; that whereas he ought to be everything in the lycée, he was almost nothing."[1] M. Ribot, the chairman of the commission, dubbed him an official who "passed all his time like a Minister, in granting audiences."[2] The head master of one of the big Paris lycées thus characterized some of his own difficulties: "I see my professors and tutors as often as I can, but if I should devote one minute a day to each one, it would take me three consecutive hours. . . . I receive the families, for it is one of the exigencies of the lycée. There are about thirty thousand visits a year. I receive from half past eight in the morning until noon, and from two until six."[3] Small wonder is it then that the head master when once he is promoted from the professorate practically cuts himself off from direct contact with the real educational work of his school. He is relieved from all class teaching, and, by tradition and force of circumstances, he is essentially an administrative director rather than an educational leader. For this very reason some of the best of the professors refuse promotion to the head mastership, for the advancement seems to them more apparent than real. As a matter of fact, save for the occasions when he goes to the various class rooms to read the standing of the pupils or to announce the quarterly marks, the head master's visits to his classes are almost as rare as the inspector's, and so far as I was able to find out his directing of the work of the school is all done at long range, so to speak. This is undoubtedly the best solution possible, for it is rather rare to find the professors looking up to their head master as their intellectual superior. As more than one of them said to me,

[1] RAIBERTI, *Régime des lycées*, p. 55, in *Enquête*, VI.
[2] RIBOT, *Enquête Introduction générale*, VI., p. 10.
[3] FOURTEAU, in *Enquête*, I., p. 565.

"As far as academic distinctions are concerned, many of the head masters are not our equals, nor even do they represent the best of the professors. (I do not know that my own *proviseur* is competent to criticize my work."' There is even more justification for this feeling on the part of the science teachers when the head master happens to be a classicist, as is usually the case. The head masters hold the regular teachers' meetings required by the regulations, but it is the exception rather than the rule to find, as I found at Lille, one who gathered once in three months the teachers in every department or group of allied subjects to discuss pedagogical questions of vital importance. The head master there was keen enough to appreciate his own shortcomings and took pains previously to inform himself thoroughly on all points that were likely to come up at a given session. Thus although himself a former classical teacher he was able to take intelligent part in discussions affecting the progress of the science divisions. In the main, then, all the expert inspection in the secondary schools is turned over to the academy inspectors, and the real educational progress of the institution depends upon the teachers rather than upon the head master.

Although the censor ranks next to the head master and discharges his duties in case of temporary incapacity, he is a sub-master with certain very special functions. The Censor. He looks after the resident pupils when they go to bed and when they rise; he looks after them at their meals; he supervises their recreations, both within and without the lycée; he is the immediate superior of the study room masters; he is always in the courtyard at the opening of the sessions, and the laggards have to seek cards from him before going to their class rooms. In a word he is a regular discipline master. Furthermore he is a general medium of communication between the head master and the school. The marks are turned in to him every night, and he reports to the head of the school in the morning on the general condition of the lycée, transmitting to him the record of each boy

as it came in for the previous day. The post of censor at Paris is generally considered more desirable than that of head master in the provincial towns, and not a few of the censors at the capital have come up in this fashion.

Bursar.

The department of the bursar, *économe*, is quite distinct from the teaching force of the school. The bursar receives the fees, provides the food and supplies, arranges the menus, and acts as a general financial agent. He is also a veritable superintendent of buildings and grounds, and so has charge of all the domestics on the premises. In one of the less important lycées of Paris, the bursar has no fewer than forty servants under his control. So in addition to being a good accountant, he must also possess considerable executive ability. The bursarship thus constitutes a career in itself. The regular progress of advancement begins with the tutor, and passes thence through the grades of book-keeper and assistant bursar.

The teaching force proper of the lycées includes:[1]

(1) The professors and the acting professors in charge of the classes; these are the teachers down through the sixth form;
(2) the professors of the elementary classes, the teachers of the seventh and eighth forms;
(3) the primary teachers, in the two years of the preparatory division and the beginning class (*classe enfantine*);
(4) the professors and acting professors of drawing;
(5) the professors of gymnastics; and
(6) the laboratory assistants.

Teachers.

No one may be appointed a regular professor unless he is twenty-five years old, has been five years in the educational service of the State, and holds the title of *agrégé*. The acting professors in charge of classes receive their appointments only when there is a lack of *agrégés* for the positions in question. They are required to hold only the master's degree in letters or science, or one of the certifi-

[1] GOBRON, *Législation et jurisprudence de l'enseignement public et de l'enseignement privé en France et en Algérie*, ed. 1900, p. 510.

cates for teaching modern languages, and academically, at least, form a class distinctly inferior to the *agrégés*. Most of them at first look forward to the *agrégation* and a regular professorship, but after several failures to pass the competitive examination they apparently accept the inevitable, and settle down. Their salary is five hundred francs less than that of an *agrégé* doing exactly similar work, and it is not so easy for them to gravitate toward Paris, the Mecca of most French teachers. The professors of the elementary classes in the lycées must hold the master's degree or a special certificate for teaching in these elementary classes. The men and women primary teachers are taken from the members of the teaching force of the primary system that hold the highest grade certificates in that system. They receive the same salary and continue to hold the same rights and privileges as though they were still attached to a regular primary school. The possession of the certificate for teaching English or German enables them to add three hundred francs per year to their salaries. Professors and acting professors of drawing must hold respectively the higher and the elementary certificate for teaching that subject. The laboratory assistants (*préparateurs*) for the science work must hold the master's degree in science. The French title is much more descriptive of the character of the duties of these men than is the English equivalent, for they are real "preparers" for the laboratory work. The French laboratory is quite bereft of all movable equipment, the Bunsen burner being about the only exception to this statement. Consequently, the apparatus and supplies for every laboratory period have to be assembled in the general laboratory and brought in to the student tables. Besides this, the *préparateur* performs the duties of an ordinary laboratory assistant during the class period. In one of the lycées of Paris, which is especially devoted to scientific instruction, there are no fewer than four of these assistants, and they are all kept busy.

The regular professors are the backbone of the French

secondary system. Notwithstanding all the criticism to which the schools have been subjected, hardly a voice has been raised against the teachers. They are as fine a body of men as one is likely to find, and from the standpoint of academic qualifications, at least, are not to be surpassed. Certainly our American teachers are not serious rivals. One reason for this, perhaps, is that in France teaching is a profession; it is never the stepping stone to business or to another profession. A man takes it up seriously as a life work. The preparation is long, and the competition strenuous, so that once he has put his hand to the plow, he cannot afford to turn back. Many fall by the wayside, but once the goal is attained, the honor is large, the tenure is secure, and a retiring pension is assured. With us in America, we may fairly say that the tenure is reasonably secure, but for the very great majority of our secondary teachers the honor and the pension are still to be attained. From our own point of view, the French secondary teacher is lacking in personal sympathy with his pupils, or at least from the manifestation of it. He meets them only in the class room, and although the French educational writers are constantly contrasting education and instruction and are continually emphasizing the former, as far as my own observation goes, the French teacher devotes himself almost exclusively to developing the intellect of his pupils. It must be admitted that he succeeds in this task. In the lecture room he throws himself heart and soul into his class work, but outside he jealously guards his time as his own, and usually devotes it to his professional advancement. This, together with the very exclusive character of the French family life, explains why it is so rare that the professors can be induced to take secondary pupils into their homes. Thus they never come into the same personal contact with their pupils that we find in the great English public schools and at the corresponding American schools, such as Andover, Exeter, and Lawrenceville. Indeed, such relations would be beneath the dignity of the French pro-

Professors.

fessor. This forces the employment of tutors and surveillants in the schools.

There is a carefully arranged schedule of maximum work hours of service for each class of professors.[1] In the department of the Seine and at Versailles the teachers of higher mathematics are liable for ten hours; the other mathematics teachers and the upper form teachers, from twelve to fourteen hours; the modern language teachers and the teachers of other than science subjects from the second through the sixth form, fifteen hours; and the elementary teachers, nineteen hours. The acting professors under fifty years of age are required to teach one hour more than the regular professors doing the same work. Furthermore, every one must hold himself ready to give two hours additional, but for this he receives extra remuneration. This supplement is always required from the higher mathematics teachers, and usually from the others. In the provincial lycées, the same general conditions prevail save that the maximum weekly service runs one or two hours higher. In Paris, particularly, where the living expenses are heavy, the professors are often glad of the opportunity to put in even extra supplementary hours. This works to the mutual advantage of the Ministry and the individual, for it saves the appointment of additional teachers, and enables the strong and vigorous men to add appreciably to their incomes.

The surveillance of the pupils and the supervision of the study periods are quite divorced from the class work. The general surveillant is an assistant to the censor, and relieves him of much of the yard supervision. The bulk of the surveillance duties falls to the lot of the tutors (*répétiteurs*). These are of two orders, the probationers and the regulars. The probationers are appointed by the rector for a period of three months. At the end of that time, if their work has been satisfactory, they receive a regular appointment from the Minister. These tutors with regular appointments fall into two grades; those that come

Surveillance.

[1] *Arrêté*, Aug. 25, 1902, WISSEMANS, *op. cit.*, p. 97.

up in the way just described and hold the master's degree, and those that have been promoted from similar positions in the colleges and that hold only the bachelor's degree. We have nothing in our school system that is at all comparable to the work of these men. It is mainly supervision of study periods, although there is a little hearing of lessons, and a good deal of police duty. The tutors are responsible for the conduct of the boys and the maintenance of good discipline from ten o'clock in the morning until dinner time. There is a tutor in every study room (*salle d'études*). He supervises the study period, directs the work of the pupils, sees that they do their tasks neatly, that their lessons are properly prepared, and he transmits regularly to the censor and to their professors, marks on their study room work. He may even be assigned to give outside instruction to individual pupils under the direction of the regular teacher. The tutor certainly occupies an unenviable place. Every one probably entered his present position with the hope of making it a stepping stone to something higher, eventually of reaching a professorship, but nearly all of them have been doomed to disappointment. As one of them said to me: "Here I am in Paris within two hundred yards of the university, and my time is so taken up at the lycée that I have no leisure to attend lectures or even to advance my scholarship." And this was a young man only slightly over thirty years of age. One of the reports of the Parliamentary Commission continues the story: "Out of 1,574 tutors in the lycées, 238 have less than five years of service; 475 have from five to ten years; 764 from ten to twenty years; 97 have more than twenty years. Out of the same number, 531 are between twenty and thirty years of age; 973 between thirty and forty; 109 between forty and fifty; and 111 between fifty and sixty. In other words, nearly two thirds of the tutors are already passed thirty years of age, and almost half of them have spent more than ten years in the service. Out of 1,574 tutors in the lycées and 745 in the colleges, 2,319 in all, only 90 left during the year 1898–1899 either through

promotion or resignation or retirement. . . . They are either too young or too old; if young, they are thinking only of their examinations; if old, they have become embittered and discouraged."[1]

Dormitory Surveillants.

Below the tutors are the ordinary surveillants, commonly known as the dormitory surveillants. These are chiefly young men that already possess the bachelor's degree and are carrying on their studies in the higher faculties. They are not even classed in the regular force, but are selected and dismissed at the will of the head master. The position is a good one for a student, for since he is ordinarily on duty only from seven o'clock at night until eight o'clock in the morning, he is able to support himself while he is studying and yet have a good working day at his own disposal. He sleeps in the dormitory where he can keep an eye on the boys, although he has a section that is at least curtained off from the rest of the room, and he is responsible for seeing that everything goes well during the night. He likewise has charge of the boys during the first study period of the day, which comes before breakfast. In the university centres the recruitment of these dormitory surveillants is a simple matter, for the large numbers of students in the various faculties furnish the head masters with a supply of available young men far in excess of any possible demand. Outside the university towns, however, the situation often presents considerable difficulty. There dependence has to be placed upon young men sometimes just fresh from the lycées themselves, who are able to prepare for some higher examination without following any regular lectures, together with occasional assistance obtained from the younger unmarried tutors. In many cases the dormitory surveillant is so youthful as to be in almost as much need of supervision as the boys over whom he is appointed. He is thus but little more than a monitor. In one school that I visited, the dormitories

[1] RAIBERTI, *Régime des lycée*, pp. 96–98, in *Enquête*, VI.

were locked for the night, and ordinary egress was impossible for the surveillant as well as for the boys. A key was enclosed in a glass wall box beside each exit for use only in emergency cases. The whole arrangement is a decidedly questionable contrivance, but it serves to indicate the measure of authority these surveillants enjoy as well as the amount of confidence reposed in them.

Total Staff Required.

It is amazing to us to see how many persons it requires to run a French lycée. In one of the Paris schools which has about 950 pupils enrolled, divided as follows: boarding pupils 100; half boarders 250, that is, pupils that remain at the school from the opening in the morning until seven o'clock at night — these have the midday meal and a light luncheon in the middle of the afternoon at the school, and have the study room privileges of the boarding pupils; day pupils that study at the school under supervision 80; and ordinary day pupils 520; there are ninety-nine different persons in the administrative, teaching, and surveillance departments. This includes the bursar and his two assistants, but takes no account of the attendants under his direction, nor of the dormitory surveillants. It is safe to count on at least fifty domestics in this school. Of course, some of these are required exclusively on account of the boarding pupils and the half boarders, but when all allowances have been made the number seems rather formidable.

Personnel of the Colleges.

From the head down, the standard of qualification of the personnel of the colleges in the main is distinctly inferior to that of the lycées, although the colleges are held to the same general program and are expected to do the same work. The reorganization of the secondary school system, in 1902, raised the minimum qualifications for these college positions somewhat. Henceforth the new principals will be required to hold the master's degree or else to have been a regular professor in a college or an acting

professor in a lycée.[1] In the municipal colleges, the duties of the censor, where there is occasion for such an official, are almost invariably discharged by a general surveillant. In many of the smaller schools one or more of the professors are designated to perform such functions. The professors of the colleges are divided into three orders. The first includes the *agrégés*, those that hold the master's degree, one of the special certificates for teaching in secondary schools or the diploma of the old Cluny normal school; the second the holders of the simple bachelor's degree; the third, the holders of the higher diploma (*brevet supérieur*) and the certificate of teaching ability (*certificat d'aptitude pédagogique*).[2] As in the lycées the tutors are divided into two groups, the probationers and the regulars. The former, simple bachelors, are appointed by the rector for a year's trial, and then if satisfactory they receive a ministerial appointment. Holders of the master's degree are relieved from this period of probation.[3]

Classes of Teachers and Promotion.

The decree of December 28, 1903,[4] went a long way toward simplifying the very complex division into classes of the various grades of functionaries in the secondary school system. Save for a few of the tutors and a small group of professors *agrégés*, all the functionaries of every order in the boys' and girls' lycées and colleges are uniformly divided into six classes. Every new appointee begins in the lowest class of his order. At least two years of service are required in the sixth class before the individual is eligible for promotion to the fifth; in the fifth class the minimum service is three years; in the fourth class, four years; and in the third and second classes, five years each. These minima are reduced one year in each case for the functionaries of the lycées of Paris and Versailles, for the

[1] *Décret*, May 31, 1902, Art. 2, WISSEMANS, *op. cit.*, p. 164.
[2] *Décret*, June 27, 1892, Arts. 1–2, *ibid.*, p. 93.
[3] *Décret*, Aug. 28, 1891, Arts. 10–11, *ibid.*, pp. 83–84.
[4] WISSEMANS, *op. cit.*, pp. 189–190.

censors and the bursars of the lycées, and for the principals of the colleges, and for the directresses and bursars of the girls' lycées. There are furthermore some minor modifications on account of age. For the classes below the second, promotions are made, one half by reason of length of service, and one half from choice; for the second and the first classes, one third on the basis of service, and two thirds on choice.[1]

The table on page 117 based upon the decree of 1910 shows the salary schedule for the staff of the boys' lycées and colleges.

The head masters of the lycées are classed as regular professors, and they are promoted under the same conditions. For their work as directors they receive from 2,000 to 4,000 francs per year extra, but the average of all such salaries must not exceed 3,000 francs.[2] Under this schedule, the maximum salary for the head masters is 13,500 francs in Paris and 11,200 francs in the departments. Furthermore, the head master is given an apartment in the lycée and has a certain annual allowance of wood and oil. The censors, bursars, and general surveillants likewise have their lodgings at the schools and smaller allowances of the same nature for heating and lighting. In the case of the head master these amount to thirteen steres of wood and seventy-five kilograms of oil per annum. In Paris and Seine-et-Oise the censors receive either 8,000 or 9,000 francs, aside from the 500 francs bonus for the *agrégation*. The bursars in the same lycées are likewise grouped together and receive 8,000 francs. All the bursars in lycées receive an additional percentage of two tenths of one per cent on the first 200,000 francs of actual

[1] *Décret*, July 20, 1889, Art. 1, WISSEMANS, *op. cit.*, p. 66.

A recent law has still further modified the scheme of promotion. According to the terms of this law, fifteen per cent of the teaching and administrative staff who have completed the minimum service in their class may be selected for advancement from choice. This promotion comes as a right to all the others after they have spent two years more than the prescribed minimum period in any particular class. *Loi*, April 7, 1908, *Bull. adm.*, 1908, I., pp. 549–550.

[2] *Décret*, May 31, 1902, Art. 3, WISSEMANS, *op. cit.*, p. 164.

SALARY SCHEDULE — BOYS' SCHOOLS*

(Amounts in francs)

	Classes	Lycées: Regular professors	Lycées: Acting professors, holding master's degree [1]	Lycées: Acting professors, holding bachelor's degree	Lycées: Professors of elementary classes [2]	Lycées: Acting professors of drawing	Lycées: Professors of gymnastics	Lycées: Laboratory assistants	Lycées: Censors	Lycées: Acting censors	Lycées: General surveillants, 1st order	Lycées: General surveillants, 2d order	Lycées: Bursars	Lycées: Asst. profs., tutors, book keepers, 1st order [3]	Lycées: Asst. profs., tutors, book keepers, 2d order	Lycées: Elementary teachers	Colleges: Professors, teaching principals, with master's degree, 1st order	Colleges: Professors, teaching principals, with master's degree, 2d order	Colleges: Professors, teaching principals, with bachelor's degree, 1st order	Colleges: Professors, teaching principals, with bachelor's degree, 2d order	Colleges: Professors 3d order	Colleges: Professors of drawing	Colleges: Professors of gymnastics	Colleges: Tutors	Colleges: Principals having boarding dept.
Departments of the Seine, and Seine-et-Oise	I	8000	6500	. .	6000	. .	3000	5500	Two classes, 9000 or 8000	. .	5500	4900	One class, 8000	4900	4300	4500	. .	. .	. .	. .	. .	. .	. .	. .	. .
	II	7500	6100	. .	5600	. .	2800	5100		. .	5100	4500		4500	3900	4100	. .	. .	. .	. .	. .	. .	. .	. .	. .
	III	7000	5700	. .	5200	. .	2600	4700		. .	4700	4100		4100	3500	3700	. .	. .	. .	. .	. .	. .	. .	. .	. .
	IV	6500	5300	. .	4800	. .	2400	4300		. .	4300	3700		3700	3100	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	V	6000	4900	. .	4400	. .	2200	3900		. .	3900	3300		3300	2700	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	VI	5500	4500	. .	4000	. .	2000	3500		. .	3500	2900		2900	2300	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Provincial departments	I	5700	5200	4300	4900	4300	2600	4900	6000	5000	4900	4300	6500	4600	4000	3500	4900	4300	3500	4000	2500	2700	5900		
	II	5300	4800	3900	4500	3900	2400	4500	5600	4600	4500	3900	6000	4200	3600	3200	4500	3900	3200	3600	2300	2300	5500		
	III	4900	4400	3500	4100	3500	2200	4100	5200	4200	4100	3500	5500	3800	3200	2900	4100	3500	2900	3200	2100	1900	5100		
	IV	4500	4000	3100	3700	3100	2000	3700	4800	3800	3700	3100	5000	3400	2800	. .	3700	3100	2600	2800	1900	1500	4700		
	V	4100	3600	. .	3300	2700	1800	3300	4400	3400	3300	2700	4500	3000	2400	. .	3300	2700	2300	2400	1700	1100	4300		
	VI	3700	3200	. .	2900	2300	1600	2900	4000	3000	2900	2300	4000	2600	2000	. .	2900	2300	2000	2000	1500	700	3900		

NOTE: None of these figures includes the annual allowance of 500 francs granted to every *agrégé*. The *agrégés* professors of the first class, under certain conditions, are eligible for promotion to an "unclassed" group. Here they receive 1,000 francs more than the above figures in the Seine and Seine-et-Oise, and 500 francs in the provincial departments.

[1] "Preferred" group on the provincial scale: one-fifth of the professors of elementary classes, and one-fifth of the professors in the colleges are also classified here. [2] Professors of drawing classified here. [3] Assistant bursars classified here.

* *Décret*, June 24, 1910. *Bull. adm.* 1910, I., pp. 9–13. In full effect 1915.

receipts, and one tenth of one per cent on sums in excess of 200,000 francs. In noting the very small amounts paid the tutors in the colleges, it must be borne in mind that these men have their board and lodging at the school. The value of this is officially reckoned at 1,000 francs per year. By reason of the generosity of the municipal councils of Lyon and Marseille, the salaries of the lycée staffs of these two cities range from two hundred to seven hundred francs per year higher than in the other provincial lycées.[1] Bordeaux and Lille did likewise (1913).

In every case the salary is attached to the class and does not bear any relation to the school *per se*. Thus a teacher may be transferred from a small lycée in the south to a large lycée in the extreme north or *vice versa*, yet his salary will not necessarily be affected in the least. If he is brought to Paris, however, he falls into another category and benefits considerably thereby. It requires only a glance at the foregoing schedule to see how desirable the Paris appointments are. The salary of the regular professors of even the sixth class at Paris, including, of course, their *agrégation* bonus, is equal to that of a principal of a provincial college of the first class. All of these salaries seem remarkably low from our point of view. After making due allowance for the rent, 13,500 francs, the very highest salary of the head master of a Paris lycée, does not compare at all favorably with the salaries of the principals of the high schools in New York and our other large cities.[2] Remember, too, that the French head master, even under the most fortunate combination of circumstances possible, cannot reach his maximum

[1] *Décret*, May 8, 1904, WISSEMANS, *op. cit.*, pp. 196–197.

[2] Comparing the figures with the salary schedules for Germany, given in RUSSELL, *German higher schools*, Appendix F, we find that Paris head masters begin at a salary exactly equivalent to that of the Berlin principals. In Paris the promotion is rather more rapid, and the maximum salary is considerably higher. For the most part the provincial principals in Germany are rather better off than the corresponding masters in France. Among the regular teachers, however, the advantage is all with the French, save that after twenty-one years of service, the German country teacher is slightly to the good.

before he is forty-four years of age. In practice he is well over fifty before he receives this salary, and if he did not gain the *agrégation* in his youth, even this will always be beyond his reach.

Pensions.

For more than half a century the French government has had a national pension law[1] applicable to all officials paid from the public treasury. The basis of the pension fund is provided partly by laying a tax of the twelfth part of the first year's salary as well as a like portion of each subsequent increase, but chiefly from the proceeds of a five per cent tax on all regular salaries. The teachers' deductions in pay on account of absence or punishments likewise help swell this fund. The major part of the primary school teachers are classed in the active division which makes them eligible for a pension when they have reached the age of fifty-five and after twenty-five years of service; while the secondary and university teachers fall into the passive division and become eligible at sixty years of age and after thirty years of service. The time spent at the higher normal schools after the age of twenty is included in this service period. In the passive class the pension is reckoned at one sixtieth for each year of service, calculated on the average salary of the last six years as a basis. This gives the secondary teacher an ordinary retiring pension of one half this average sum, but in no case may it amount to more than two thirds of this figure nor exceed six thousand francs. Special regulations apply to cases where the individual is seriously injured or dies in the performance of his duty. In this latter event, the widow's pension is two thirds of what her husband's would have been. Under normal circumstances, a widow must have been married six years before her husband's retirement in order to draw a pension. It is then one third of what her husband received. Orphan children divide the mother's share until they reach the age of twenty-one. The widow's or orphan's pension is never less than one hundred francs per year.

[1] *Loi*, June 9, 1853, WISSEMANS, *op. cit.*, pp. 10–18.

Every member of the secondary teaching force is exempt from all matriculation charges in the faculties or other state higher institutions of learning, as well as from all library, examination, certificate, and diploma fees for the master's degree. The children and wards of the functionaries of the secondary system receive free tuition as day pupils or as day pupils studying under supervision at the boys' and girls' lycées, and at the boys' colleges. Through some oversight the same privileges do not apply to girls' colleges and secondary courses (*cours secondaires*), but inasmuch as the primary officials have free tuition privileges in all these various categories of schools, similar favors will probably be made general for the secondary teachers and administrative officers. The value of all such exemptions in the budget of 1908 amounts to more than a million and three quarters of francs,[1] nearly one third being on the account of the officers and teachers of the secondary school system, and the remainder on the account of those in the primary school system.

Perquisites.

Like so many other questions in the school administration, the system of punishments to which officials may be subject is wonderfully complex but at the same time wonderfully explicit. There seems to be no doubt as to what may be done and under what authority. The regular teachers of both lycées and colleges are guaranteed the same protection that is accorded members of the faculties, and the punishments inflicted are comparatively rare. Disciplinary processes fall into three general categories, depending upon the authority that has the power to inflict them.

Punishments.

(1) The Minister may pronounce a reprimand before the academic council or before the superior council, neither of these being subject to appeal; or he may suspend the professor without loss of salary for a period not exceeding one year.

(2) The Minister with the sanction of the permanent sec-

[1] *Budget général, de l'exercice*, 1908, sec. 1, p. 313.

tion of the superior council may transfer a professor to a lower position.

(3) The punishments that may be inflicted by the academic council are all subject to appeal to the superior council. They are of four sorts: suspension with partial or total loss of salary, removal, revocation, and permanent disbarment.[1]

The disciplinary regulations to which the tutors are subjected are quite distinct from the foregoing. They are no fewer than nine in number, varying from the simple "warning" of the academy inspector to permanent disbarment from teaching pronounced by the academic council, subject to the ordinary conditions of appeal to the superior council.

Distinctions.

Besides the perquisites above referred to, there are literally thousands of distinctions awarded every year to the officers and teachers of the educational system. The French people seem almost to have a mania for decorations, for these range from membership in the Institute down to the bronze medal awarded for success in securing revaccinations among primary school children. The origin of the ordinary honorable distinctions dates from Napoleon's foundation of the University just a hundred years ago. There are two to which the staff of the secondary system is ordinarily eligible: officer of the academy; and officer of public instruction. These distinctions, however, are confined neither to the secondary schools, nor even to the officials of the educational system. They serve two general purposes: in the first place to offer public recognition to teachers and members of learned societies for work really meriting such recognition; and in the second place to provide a means of extending the popularity of the government. Members of the secondary system must be proposed by the rector on recommendation of the academy inspector. In general one must have been officer of the academy for five years before being named officer of public instruction. The value of these distinctions necessarily decreases with

[1] *Loi*, Feb. 27, 1880, GOBRON, *Législation de l'enseignement*, pp. 529–530.

their numbers. In the Paris lycée already referred to, of the ninety-nine persons in the administrative, teaching, and surveillance departments, seventy-five of them are either officers of the academy, or officers of public instruction, and fourteen of the remainder are merely tutors. It goes without saying that this proportion is likely to be larger in the Paris schools, but in a small lycée in the extreme south selected at random, aside from the tutors, exactly three quarters of the staff belong to one of these two orders.

When the accounts have been cast, it must be admitted that the lot of the French regular secondary teacher is far from unsatisfactory. While apparently his salary is poor compared with many of those paid in America, relatively he is much better paid. He has labored hard to reach his position, but he has a government appointment which carries respect with it. His tenure is secure, promotion is slow but reasonably certain, and at retirement his pension is assured. Furthermore, he is able to live in the community comfortably on an equality with those of his neighbors whose tastes are similar to his own.

CHAPTER VII

THE PROGRAM

EVEN to the casual observer of the trend of educational thought in France during the last two decades, the struggle that has been going on in the field of secondary education has been plainly evident. The marked evolution in the ideas concerning secondary education has followed closely upon the evolution in the economic and social world. It has been the strife between utilitarianism and mere culture, between realism and humanism. It has been the effort to force the secondary school to set aside its former unique function of preparing for the university, and to assume the added responsibility of fitting for real life. All through the Middle Ages Latin was the very foundation of liberal culture. At times Greek appeared to dispute this ascendency, but in the main the Latin held its own. Racked though it was by the forces of the Revolution, it nevertheless quickly reassumed its old position as the dominant culture force. The materialism of the nineteenth century again challenged its right of precedence, and this time a truce was arranged. Later, the program of 1890–91 bade fair to settle the strife, but this apparent solution was only temporary. The new "modern" instruction did not produce the anticipated results. Many of the families still looked upon it as inferior to the classical course, even for those pupils preparing for the great scientific schools. One thing that militated seriously against the success of the reform course was the fact that its baccalaureate did not share in the privileges of the old classical baccalaureate. This was rather surprising

The Case of the Classics.

in the case of the medical school, for the letters course practically neglected the science subjects that play so large a part in the preparation of the physician. It is almost unnecessary to add that the science course was no more liberally inclined toward the philosophical subjects. Just at that point came the parliamentary investigation commission of M. Ribot, and that committee overhauled the whole question from cellar to garret. In fact it is rather difficult to find any question affecting secondary education that was not touched upon during the course of that inquiry.[1] The conclusions alone enumerate no fewer than fifty-two separate points.

Without attempting even to outline the discussions that took place there, suffice it to say that they led up directly to the fundamental reform program of 1902. Save for minor modifications this is the program in force to-day in the boys' lycées and colleges in France. It certainly marks the passing of the classics, not as an instrument of general culture, but as the sole medium by which that general culture could be attained. Germany has already struggled with the same problem and has solved it, at least temporarily. America has also wrestled with it, although we have not yet reached a position of equilibrium in the matter. England, too, has felt its influence, but the fact that secondary education as it used to be understood has been carried on there chiefly under private auspices caused it to present certain problems that were not found in the other three countries.

France has come out boldly and recognized, at least officially, the exact parity between the scientific education and the classical education. "Scientific humanism has won the right of sitting side by side with literary humanism."[2] Mathematics, which up to that time had been merely a tool, is henceforth to be put upon an equality with letters

[1] *Enquête sur l'enseignement secondaire*, 1899, six large quarto volumes, making in all three thousand pages in double column. Representatives from every branch of the service, from former ministers of public instruction to simple professors, were invited to present their views before the commission, and no detail was omitted.

[2] COUYBA, *Rapport du Budget général*, 1907, p. 73.

as an instrument of culture. This is no disparagement of the classics, to which the French are under peculiar obligation for the development of their taste and artistic nature, but merely makes open confession of the fact that science is also to be recognized as a means of culture, distinct, to be sure, but none the less effective. The former can no longer be treated as subordinate, under the rubric of "special" or "modern" education. The old degrees of bachelor of arts and bachelor of science have ceased to exist; henceforth there is only one baccalaureate. Whatever mention of subjects appears on its face, the privileges it confers are identical. It goes without saying that if certain secondary courses are followed, certain advanced work cannot be undertaken. For instance, a student who has studied Latin but not Greek will be unable to come up for the master of arts degree, because that includes Greek. If he were willing to make up this Greek, however, there would be no other obstacle in his way, for the Latin and the other subjects in the classical course are practically identical with those in the Latin-modern language section or the Latin-science section. The official sanctions in civil life for all these sections are the same. Formerly the non-classical students were unable to compete for certain careers. Now all are on the same basis. Furthermore they are now admitted alike to the professional schools. A student who passes his baccalaureate without ever having studied a word of Latin is admitted to the law faculty or the medical faculty upon exactly the same footing as one who has devoted himself to Latin and Greek throughout his course. Neither has any advantage to his credit nor any handicap to overcome. In either case he received a liberal education; his professional education lies before him.

The Parity between Classical and Scientific Education.

The decree of the President of the Republic of May 31, 1902, as prepared by the Superior Council of Public Instruction, runs as follows:

ARTICLE 1. Secondary instruction is co-ordinated with primary instruction so as to follow directly upon a normal *four-year* course of primary study.[1]

ART. 2. Secondary instruction is given in a course of study which extends over seven years and is divided into two cycles: one of *four years*, and one of *three years*.

FIRST CYCLE

ART. 3. In the first cycle, the pupils have a choice between two sections.

In one section, aside from the subjects common to the two sections, Latin is obligatory from the first year (the sixth form), and Greek is optional beginning with the third year (the fourth form).

In the other section, which includes neither Latin nor Greek, more emphasis is put upon the instruction in French, science, drawing, etc.

ART. 4. In both sections the programs are arranged so that at the end of the first cycle the pupil is in possession of a certain fund of serviceable knowledge which is complete in itself.

ART. 5. At the end of the first cycle, a certificate of secondary study of the first degree may be given to the pupils, on the basis of the marks they have had during the four years, and after the deliberation of the professors whose instruction they have followed.

Candidates for the baccalaureate have the right to submit this certificate to the jury.[2] It will be given the same weight as the report book in determining the candidate's standing at the written and at the oral examination.

[1] "This is not exactly true. At the last moment the Minister and the superior council of public instruction could not resign themselves to eliminating the study of modern languages in the eighth and seventh forms of the secondary schools. Thus the sixth form follows directly after the seventh, but not after the course of the primary schools properly speaking." *Annuaire de la jeunesse*, 1907, p. 187.

In order not to give the secondary pupils any undue advantage, the competitive examinations for scholarships in the lycées and colleges are based exclusively upon the subject matter of the primary school program.

[2] That is, the examination commission before which the bachelor's examination is passed.

SECOND CYCLE

ART. 6. In the second cycle, four groups of courses are open to the pupil:

1. Latin and Greek;
2. Latin with more extensive study of modern languages;
3. Latin with more extensive study of science;
4. Modern languages and science, without Latin.

This last section, though intended normally for those pupils that have not had Latin during the first cycle, is nevertheless open to those pupils who have studied Latin during the first cycle, but do not care to pursue it further.

ART. 7. For those pupils who are not coming up for the baccalaureate, a course of study will be arranged in certain schools at the end of the first cycle whose chief aim will be the study of modern languages and the study of science in its practical applications. This will be a two-year course, and will be adapted to the needs of the particular community. The programs will be arranged by the academic councils and promulgated by the Minister.[1]

At the completion of this course of study, and after a public examination on the subjects of instruction, a certificate may be granted which shall bear the name of the academy where the examination was passed, the subjects of the examination, and the marks obtained.

The apparent effect of this decree was to separate conclusively the real secondary course from the elementary or

[1] This last provision marks an important step, for it is a definite attempt to get away from the almost absolute uniformity that dominates the secondary school system. It must be noted, however, that this confers on the academic council nothing more than the privilege of suggestion. The Minister still retains the power in his own hands, for he may accept, modify, substitute for, or reject any or every part of the proposed program.

"In the terms of a ministerial circular of July 19, 1902, these courses were to be organized in only a certain number of important lycées where there was a real need for them. Furthermore, these lycées must be able to offer both from the point of view of the material equipment and of the teaching force all the resources necessary for a successful organization. We do not believe that any such course has yet been organized." *Annuaire de la jeunesse*, 1907, p. 181, note.

primary course. Ostensibly it superimposed the secondary course, which begins with the sixth form, upon the primary school course as well as upon the elementary work given in its own lower classes. But in practice this end has not been attained, due partly, as has already been pointed out, to the question of modern language instruction, but chiefly to economic and social causes. The former difficulties might easily be avoided by a stroke of the pen, but the latter are more deep seated in their nature.

Effect of this Reform.

The division into two cycles is likewise of great significance. It provides a stopping place about the middle of the course which enables a boy to catch his breath, so to speak. Furthermore, if for any reason he leaves school at the end of that first half, he takes away with him a definite unity of ideas. He need not feel that he has begun a piece of work and left it unfinished. He has met the classic authors of his own literature, he has studied from one to three foreign languages according to the course he has chosen, for at least four years, he has covered all the common arithmetic, he has completed the geography of the world, he has glanced at every period of the world's history from the very beginning down to 1889, and this has included brief sketches of all the countries of the civilized world in modern times; in a word he has touched practically all the subjects of secondary school study. The course is so arranged that this point forms a natural break, whereas under the old conditions it was admittedly worked out on at least a seven-year basis. It had to be carried all the way through or else the time was to a considerable degree ill spent. The most obvious advantage of this break in the course was the opportunity it afforded for flexibility, for allowing a change of course without loss of time, and the superior council was keen enough to appreciate this. Although other points will appear when we come to study the courses more in detail, this very flexibility is the most striking characteristic of the new program.

The program of 1902 with the modifications of 1905 provides for a twelve-year course of study, one year in the infant class, two years in the preparatory division, and two years in the elementary division, followed by the seven years of the secondary course properly speaking.[1] The program of the infant class does not form an essential part of the curriculum any more than that of the kindergarten in our own school system, but it is nevertheless work of real school character resembling so far as subject matter is concerned our old first grade instruction.

Beginning with the preparatory division, the week hours per subject are arranged as follows:

WEEKLY PROGRAM — REGULATIONS OF 1902–1905

PREPARATORY DIVISION

I YEAR	HRS.	II YEAR	HRS.
French	9	French	7
Moral and civic instruction[2]		Moral and civic instruction[2]	
Writing	2½	Modern languages	2
Simple history stories	1	Writing	2½
Geography	1½	Simple history stories	1
Arithmetic	3	Geography	1½
Nature study	1	Arithmetic	3
Drawing	1	Nature study	1
Singing	1	Drawing	1
		Singing	1
Total	20	Total	20

[1] *Arrêtés*, May 31, 1902, July 27, 28, and Sept. 8, 1905, *Plan d'études et programmes d'enseignement dans les lycées et collèges*, Delalain Frères, 1907–8, pp. xxiii–xxvi.

[2] This instruction will be given in connection with the instruction in French, history, and geography, and is included in the time assigned to these subjects.

NOTE: For new program of 1912, see Appendix N.

Elementary Division

(Eighth and seventh forms)

	HRS.
French	7
Moral and civic instruction [1]	
Modern languages	2
Writing	1
History and geography	3
Arithmetic	4
Nature study	1
Drawing	1
Singing	1
Total	20

FIRST CYCLE

(Length, four years; from the sixth to the third form inclusive)

Sixth Form

Division A	HRS.	Division B	HRS.
French	3	French	5
Latin	7	Writing	1
Modern languages	5	Modern languages	5
History and geography	3	History and geography	3
Arithmetic	2	Arithmetic	4[2]
Natural science	1	Natural science	2
Drawing	2	Drawing	2
Total	23	Total	22

Fifth Form

	HRS.		HRS.
French	3	French	5
Latin	7	Writing	1
Modern languages	5	Modern languages	5
History and geography	3	History and geography	3
Arithmetic	2	Mathematics and mechanical drawing	4
Natural science	1	Natural science	2
Drawing	2	Drawing	2
Total	23	Total	22

[1] This instruction will be given in connection with the instruction in French, history and geography, and is included in the time assigned to these subjects.

[2] One hour for mechanical drawing.

Fourth Form[1]

	HRS.		HRS.
Ethics	1	Ethics	1
French	3	French	5
Latin	6	Modern languages	5
Greek (optional) — 3 hrs.		History and geography	3
Modern languages	5	Mathematics, book-keeping, and mechanical drawing	5
History and geography	3	Physics and chemistry	2
Mathematics	2	Drawing	2
Natural science	1		
Drawing	2		
Total	23 + 3 optional	Total	23

Third Form[1]

	HRS.		HRS.
Ethics	1	Ethics	1
French	3	French	4
Latin	6	Civil government and common law	1
Greek (optional) — 3 hrs.		Modern languages	5
Modern languages	5	History and geography	3
History and geography	3	Mathematics[2]	4
Mathematics	3	Physics and chemistry	2
Drawing	2	Natural science	1
		Book-keeping	1
		Drawing	2[3] 1
Total	23 + 3 optional	Total	25

[1] The pupils who elect Greek are relieved of three of the regular hours, two of modern languages and one of drawing.

[2] One optional hour of practical book-keeping in those schools where it is deemed advisable, the decision being made by the professors in general meeting.

[3] One hour for mechanical drawing.

SECOND CYCLE

(Length, three years; from the second to the philosophy form)

Second Form

	Section A Latin-Greek	Section B Latin-modern languages	Section C Latin-science	Section D Science-modern languages
	HRS.	HRS.	HRS.	HRS.
French	3	3	3	3
Latin	4	4	4	...
Greek	5	...	...	...
Modern history	2	2	2	2
Ancient history	2	2	...	...
Geography	1	1	1	1
Modern languages	2	2 1[1] 4[2]	2	2 1[1] 4[2]
Mathematics	2[3]	2[3]	5	5
Physics and chemistry	1	1	3	3
" " " laboratory	...	...	2	2
Drawing	2	2	2 2[4]	2 2[4]
Geology (12 lectures of one hour, common to all the sections)				
Totals	24	24	26	27

[1] In Sections B and D one hour of special work for the language studied in the first cycle.

[2] Four hours for the second language.

[3] Two classes of one hour per week during the first semester.

[4] Two hours for mechanical drawing.

First Form

	Section A Latin-Greek	Section B Latin-modern languages	Section C Latin-science	Section D Science-modern languages
	HRS.	HRS.	HRS.	HRS.
French	3	3	3	3
Latin	3	3	3	...
" extra hours	2	2*	...	...
Greek	5	...	...	...
Modern history	2	2	2	2
Ancient history	2	2	...	...
Geography	1	1	1	1
Modern languages	2	2 1[1] 4[2]	2	2 1[1] 4[2]
Mathematics[3]	1 + 2*	1 + 2*	5	5
Physics	1	1	...	...
Physics and chemistry	...	...	3	3
Physics and chemistry laboratory	...	...	2	2
Drawing	2*	2*	2 2[4]	2 2[4]
Totals	22 + 4 optional	20 + 6 optional	25	27

* Optional.

[1] In Sections B and D one hour of special work for the language studied in the first cycle.

[2] Four hours for the second language.

[3] Sections A and B, two classes of one hour per week during the second semester, plus two hours optional throughout the year.

[4] Two hours for mechanical drawing.

Philosophy and Mathematics Forms

	Philosophy		Mathematics	
	Section A	Section B	Section A	Section B
	HRS.	HRS.	HRS.	HRS.
Philosophy	8½	8½	3	3
Greek-Latin	4*	...	...	...
Latin	...	2*	...	...
Modern languages	2*	{1 / 2[1]}	2	{1 / 2[1]}
History and geography	3½	3½	3½	3½
Mathematics[2]	2½	2½	8	8
Physics and chemistry	3	3	5	5
Natural sciences	2	2	2	2
Physics and chemistry, laboratory[3]	...	...	2	2
Drawing	2*	2*	2[4]+2*[5]	2[4]+2*[5]
Hygiene (12 lectures of one hour each)[6]				
Totals	19½+ 8*	22½ + 4*	27½ + 2*	28½+2*

Save for singing, the subjects of instruction in the infant class are exactly the same as those in the first year of the preparatory division. Boys enter here normally at six years of age, though one sometimes finds little fellows one or even two years younger. In all the lycées where an infant class is found, it is invariably taught by a woman.

The New Program.

* Optional.

[1] The pupils have the right to select for themselves the distribution of these two hours.

[2] Mathematics, two hours; cosmography, one hour during one semester.

[3] Five or six of these periods are reserved for experimental work in natural science. This laboratory work will likewise be required of the Philosophy pupils in both sections.

[4] Two hours for mechanical drawing.

[5] Freehand drawing is optional.

[6] These lectures are included in the natural science instruction for both sections of the Mathematics Form, and for all four sections when the Philosophy and the Mathematics Forms have their science work in common. When the Philosophy and Mathematics Forms are not taught together, the work in hygiene is given outside the natural science instruction for the Philosophy Form.

The same is often true of the first year of the preparatory division. It is exactly the same here as in the primary school system, men teachers for boys' schools and women teachers for girls' schools. In the primary system there are some evidences of a slight weakening of this old established notion, but the tradition shows no sign of breaking in the secondary schools.

Infant Class.

Modern language study begins in the second year of the preparatory division. Theoretically the pupil may choose from English, German, Italian, and Spanish, but practically this choice is narrowed to English or German, with the chances in favor of the latter. The instruction below the sixth form is usually given by the regular class teacher, and it is rather rare to find one of these men that can teach English. The fact that formerly German was required in the secondary schools even now tends to perpetuate that language, though of late years the English has been gaining relatively. Nowadays, in the Paris lycées, the pupil may begin either English or German in the ninth form, but in the provincial schools it is comparatively rare that he can make this choice thus early. This modern language work in these lower classes is not of very serious moment. The administration is not heartily in sympathy with it, for if it is rigorously taught it will interfere seriously with the plan of co-ordinating the sixth form with the work of the primary system, the lower schools of that system having no modern language instruction. At the time of the revision in 1902, this modern language work was left in these lower grades as a kind of concession to the parents, who perhaps disliked seeing the elementary classes of the colleges and lycées too much like the classes of the free primary school system. Hence the modern language teacher in the sixth form is compelled to go back to the very beginning in his instruction. The poor grading of this class renders his task extremely difficult.

Elementary Modern Language Teaching.

One of the most important reforms in the new program was the increase in the amount of modern language instruc-

tion in division A of the first cycle. In the old classical course, it amounted to ten hours for the four years, whereas it is now sixteen for those that elect Greek, and twenty for those that do not. The total hours of modern language instruction for all Latin pupils has been increased from sixteen under the old program to from twenty-two to thirty-seven, according to the course or combination of courses pursued. Furthermore there has been a radical change in the method of instruction.

Science.

The science work has also been somewhat strengthened on the whole. In mathematics, the net change is practically null, for what has been gained in the science course has been lost in the classical course. The natural sciences have gained a few hours, particularly in division B. This addition has been chiefly in physiology and hygiene, and serves to round off the course of the boys who are likely to leave at the end of the first cycle by giving them some very definite and practical ideas of the care of the person. In physics and chemistry, the instruction has been expanded over more years, especially in the second cycle, and laboratory work has been more than doubled both in subjects and in hours. Unfortunately it is restricted to the two science sections from the second form upward, but instead of a few hours for chemistry, it now embraces physics and natural science as well, and has two hours per week during the last three years of the course.

History and Geography.

The time devoted to history and geography has been increased, particularly in the A division of the first cycle, but this has been due entirely to increases in the former subject. As a matter of fact geography has lost a half hour in the classical course. The most striking modification in history has been the rearrangement of the course whereby Greek and Roman history have been moved from the second cycle to the first. This change makes it possible to complete the history of France by the end of the third form, and gives those pupils that leave at that time a complete, though necessarily super-

ficial notion of the march of history down to the present generation.

In the old program, French, Latin, and Greek were all grouped together under one head. This was perfectly natural, for in a given form they were all taught, as they are still, by a single teacher. The total number of hours has fallen off only two in the new program as contrasted with the old. The slight loss in Latin and Greek has been almost offset by a small gain in French. In the course without Latin the time devoted to instruction in the mother tongue remains practically the same.

French, Latin, and Greek.

In each division of the fourth and third forms one hour a week is devoted to ethical instruction. This is an entirely new departure, introduced for the sake of those boys that may drop out at the completion of the first cycle. It is naturally designed to play the same part in the first cycle that the philosophy instruction does in the second cycle. It needs but a glance at the detailed program to show how imperfectly their task is accomplished. This elementary instruction is very similar to the corresponding instruction in the primary school system, which savors too much of the reward and punishment idea. The efficacy of this instruction is extremely doubtful. The philosophy of the philosophy form, which includes psychology, esthetics, logic, ethics, and metaphysics, is practically unchanged from the old program.

Ethics and Philosophy.

In looking at the program as a whole, one is struck with the marked increase in the number of week hours. Not a single class in the entire secondary school system escaped the added burden, and this, too, in spite of the hue and cry that is everywhere rising against the heavy loads that school children have to bear. Whereas the old program carried ordinarily twenty hours of school work per week, under the new program the average has been raised nearly four hours, and in some of the science sections this is increased to twenty-seven and twenty-eight hours. It seems almost incredible that in sev-

Overcharged Programs.

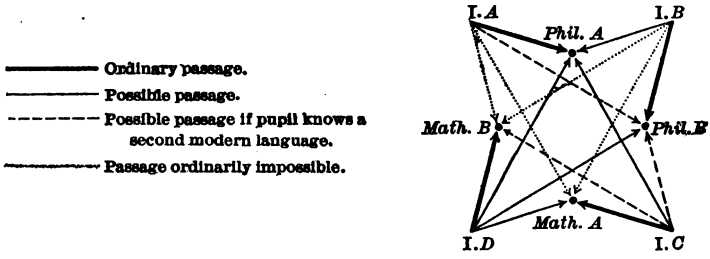
eral of the higher classes beyond the baccalaureate where the boys are preparing for the government engineering schools even this latter figure is raised by ten hours. The wonder is that the boys do not break down under the strain, especially when one considers the restricted life that they are compelled to lead, with practically none of that free outdoor exercise that forms the safeguard of the English and American boys. I am told that examiners for the baccalaureate are already seeing the effects of these over-weighted programs in the mental condition of the candidates that appear before them.

Flexibility in the Program.

Reference to the detailed programs will show that at several points in the school period certain optional courses are offered the pupils. The old program was so inflexible that once a given line was started it was almost impossible to change without great waste of time. The new program is unusually flexible and offers numerous opportunities for a change of course as a boy's inclinations are modified or his tendencies are developed. The elementary years of the secondary school present no difficulty. The course is the same for all for the first five years. When the sixth form is reached and the secondary course, properly speaking, is begun, the parents have to decide the first question, whether or not their child is to study Latin. At that time the boy is only ten or eleven years old, and the choice is not always an easy one. If Latin is not chosen, the parent's subsequent task is considerably simplified. Save for a rather restricted option in the modern language work, his course is practically determined for him. In the second cycle he follows the science-modern language group and takes his baccalaureate in mathematics. On the other hand, if there is any serious doubt in the parent's mind, he ordinarily elects Latin, for more options spread out before the boy and he is more likely to find congenial subjects. In the fourth form the Latin student has the opportunity of electing Greek. In case the latter is chosen, the natural course would be to keep on with the classical studies in the Latin-Greek

group of the second cycle and to reach the baccalaureate through the philosophy section. Such, however, is the flexibility of this program that if the boy is dissatisfied with Greek after two years' trial he may drop it entirely and change into any one of the other three sections of the second cycle. The Latin student who has not chosen Greek falls naturally into the Latin-modern language or the Latin-science section in the second cycle, although the science-modern language section is likewise open to him.

At the completion of the first form the pupils come up for the first part of the baccalaureate examination, which is based upon the work they have had in the second cycle up to that point. Then there comes a final choice, although the normal progress is to pass from the first form A or B to philosophy A or B, and from the first form C or D to mathematics A or B. Nevertheless it is quite possible for some pupils that have passed the first part of their baccalaureate in one group to come up for the second in the other group, assuming, of course, that they have made their choice at the end of the first form. It seems a little peculiar that the science-modern language pupil has the widest choice of courses at this point. The four optional courses are practically narrowed down to two, for there are only two divisions in the second part of the baccalaureate, and the examination is limited to the required subjects of the philosophy-mathematics form. The accompanying figure[1] will show more clearly the possibilities at the end of the first form.



[1] *Annuaire de la jeunesse*, 1907, p. 202.

For the ordinary walks of business, for those looking forward to agricultural pursuits and the less important administrative positions, division B and its natural successor the science-modern language work certainly gives the best training. On the other hand, the classical course is intended for those that expect to teach along the arts subjects, to enter upon a literary career, or to take up the law. The combination division A-section B appeals to those looking forward to the diplomatic service, and division A-section C prepares for the military and naval schools. Not all the four sections in the second cycle are to be found in every lycée, much less in every secondary school. Manifestly where the school population is small the authorities are compelled to make more or less arbitrary choice, but practically all of the big city lycées have complete courses. However much the new program has been criticized, and its opponents are not few, it is decidedly more flexible than the old, it goes farther toward offering a liberal education, it responds better to the demands of the time, it is France's contribution to the solution of the problem of secondary education.

Purpose of the Courses.

In order to be promoted from one grade to another, every pupil must demonstrate his ability to profit by the instruction in the higher class. Toward the end of the school year each teacher prepares a rank list of his pupils for each subject. The grading is all made up on a scale of twenty, and a mark of ten or better in any subject excuses the pupil from examination in that subject. This puts a premium on faithful conscientious work throughout the year, and relieves the good student of the annoyance and worry of promotion examinations. The others that have failed to attain this fifty per cent standard are compelled to submit to a series of examinations. At the completion of this test, the pupils are divided into three groups: (1) those that passed; (2) those that failed but are to be granted a re-examination in the fall; and (3) those that proved conclusively that they were not

Promotion Examinations.

fitted to pass into the higher class. If a re-examination is allowed, the pupil is admitted temporarily into the upper class in the fall pending the final decision. If he fails again, there is nothing to do but to repeat the previous year's work. The decision in every case is made by the head of the school after conference with the teachers concerned. It is interesting to note that the teacher of the class into which the pupil would be promoted is ordinarily a member of the jury. Some of the teachers object to the leniency shown in these promotion examinations and complain that they are consequently compelled to carry along pupils that are manifestly unfitted for the work.

There is undoubtedly considerable foundation for this complaint, for the head of a school will put himself and his teachers, to say nothing of the other pupils, to no end of inconvenience in order to avoid losing a pupil solely on account of deficiency of mental qualifications. He guards his pupils almost as jealously as though he were conducting a private school. Loss of pupils means a larger deficit at the end of the year and consequent poor standing with the superior officials, so the head masters and principals are very chary about refusing to promote pupils whose parents threaten to remove them from the school. It is really a serious matter with the school, for the state and the local budgets are made up after due consideration of the previous receipts. Inasmuch as the running expenses do not vary regularly with the number of pupils, a falling off in the receipts may lead to grave inconvenience, for there is not a single boys' public secondary school in France whose ordinary receipts pay its running expenses. This perhaps natural attitude of the heads of the schools necessarily cannot fail to have a deleterious reaction upon the schools. However this may be, the unworthy fellows are sure to be weeded out by the baccalaureate, for no financial questions enter into consideration here.

The baccalaureate marks the end of the course at the lycée or college. It is, therefore, purely a degree of sec-

ondary education, and in this respect differs widely from our corresponding degrees. The question immediately arises then as to the relative worth of the two degrees, and this is somewhat difficult to determine. There is one satisfaction about the French degree: it stands for a very definite standard of attainment. Aside from the personal equation involved, the degree from the south is in every way equal to that from the north, while it is perfectly well known that there is wide divergence among the bachelors' degrees from the American institutions. The French secondary course carries the pupil to a point that is reached by the American boy at our best colleges somewhere in the course of his sophomore year, but in France this goal is attained from two to three years earlier. On the other hand, although the French youth possesses a more definite and a more exact array of information, the greater part of his thinking has been done for him. As I have visited scores of classes in the lycées and colleges, this fact has been most forcibly brought to my attention. The mind of the French student is receptive rather than creative or even independent. It is not until after the completion of the secondary course that the latter characteristics begin to come to the fore. They evolve in spite of the method of the educational system rather than on account of it. This is the heritage that Loyola and his followers have left, and their influence is still strong upon the French character, far stronger than the ardent republican of to-day would have you believe, or would willingly admit even to himself. In its outward characteristics, the French secondary school system bears evidence of Napoleon's master hand, but deep down beneath the surface the methods of work and the fundamental ideals still reveal the impress that Jesuit control imposed upon them.

Baccalaureate.

The baccalaureate examination is held under the direct control of the Minister of Public Instruction. He appoints a special examining board of four, five, or six members, according to the subjects of the examination, divided evenly

in the first and last cases between members of superior and secondary education, and in the second case with the representatives of the lower order in the majority. There are two sessions each year, one at the end of one school year and the second at the beginning of the next, held in each of the fifteen university centers where there are faculties of arts and sciences, and at Alger in Africa. The ordinary minimum age is sixteen years, though in exceptional cases, the Minister may diminish that by a year. The examination is divided into two parts, and there must be an interval of at least a school year between them. The first part comes at the end of the first form, and covers the subjects of instruction during the first two years of the second cycle. The second part comes at the close of the philosophy-mathematics form and covers merely the subjects of instruction of that form. In each case the examination is partly written and partly oral. The student must pass the written examination before being admitted to the oral part which succeeds.

At the time of registering for the examination, the candidate indicates which section he is coming under, (Latin-Greek, Latin-modern languages, Latin-science, or science-modern languages.) The subjects of the baccalaureate examinations together with the weight attached to each one will be found in the table on the following page.

Three hours are allowed for each of the written examinations in the first part, except for those in mathematics and physics. Here the time is four hours. The mathematics section written examinations are each three hours in length, while those in the philosophy section are four hours for the philosophical dissertation and two hours for the science examination. This latter includes physics, chemistry, and natural science. The oral examinations are all open to the public. Each candidate is kept on the rack three quarters of an hour, and he has no easy task in facing an inquisitorial body of four, five, or six august professors who take turns in questioning him on the eight or nine subjects of the examination.

SUBJECTS OF THE BACCALAUREATE EXAMINATIONS WITH COEFFICIENTS OF EACH[1]

PART I					PART II		
SUBJECTS	Latin-Greek	Latin-modern languages	Latin-science	Science-modern languages	SUBJECTS	Philosophy	Mathematics
	HRS.	HRS.	HRS.	HRS.		HRS.	HRS.
Written					*Written*		
French[2]	2	2	2	2	Philosophy[2] . . .	2	1
Latin	2	2	2	..	Science[2]	1	..
Greek	2	..	..	..	Mathematics[2] . .	..	2
Modern languages[3] . . .	..	2	..	2	Physics and chemistry[2]	..	2
Mathematics and physics . . .	..	..	4	4			
Oral					*Oral*		
Greek	1	..	..	..	Philosophy . . .	2	1
Latin	1	1	1	..	Philos. authors . .	1	..
French	1	1	1	1	Contemporary hist.	1	1
Modern languages	2	2[4]	2	2[4]	Geography . . .	1	1
Ancient history .	1	1	..	..	Physics and chemistry	..	3
Modern history .	1	1	1	1	Natural science		
Geography . . .	1	1	1	1	and hygiene . .	1	1
Mathematics . .	1	1	3	3	Mathematics . .	..	3
Physics	..	..	2	2	Physics, chemistry,		
Chemistry . . .	..	..	1	1	and cosmography	2	..
Totals . . .	15	14	20	19	Totals	11	15

[1] *Programme des examens du baccalauréat de l'enseignement secondaire*, *Bull. adm.*, 1902, I., pp. 705–719; 1909, II., pp. 337–343.

[2] Three subjects are given. The candidate may select any one.

[3] The paper must be written in the foreign language. The use of a dictionary entirely in the foreign language is permitted.

[4] Each of the two languages in these sections has a coefficient of 1. One of these languages is necessarily English or German, the other being chosen from English, German, Italian, Spanish, or Russian. In Algeria, Arabic may be substituted for either of the modern languages required above. In fact, according to a decree of May 5, 1904, spoken and written Arabic may take the place of two separate modern languages at the oral examination. In this case, the test will be considerably less elementary than if two languages are offered.

A boy must have his information pretty well in hand in order to come through unscathed. Each examination is marked upon a scale of twenty, and fifty per cent of the total points are required for passing. In case of failure at the oral examination the certificate of passage of the first part is valid for the two following sessions, that is, for a year from its date of issue. The mortality at the two parts of the examination is rather heavy, for only about one half come through safely. In July, 1907, of the 20,885 candidates that presented themselves for both parts of the baccalaureate, 10,048 were successful.[1] The fees for each part of the examination are forty francs, with ten francs additional for the certificate that indicates successful passage, and forty francs for the diploma. Thus the total cost to the candidate amounts to one hundred and forty francs, by no means a small sum of money to pay for the ordinary bachelor's degree.

From first to last this is entirely a state examination, neither the secondary schools nor the universities as such having any part in its conduct. The examiners are appointed by the Minister, and the diplomas are conferred by the Minister. He may even send out the texts and the subjects for the written examinations, but in ordinary practice these are chosen by the deans of the faculties of letters and science.

The examination for the baccalaureate is thus seen to be considerably more difficult to pass than any of the similar examinations in America, in the first place by reason of the oral character of the more important parts of it, and in the second place because of the large number of subjects that must be kept clearly in mind. On the other hand, the fact that eight or nine subjects must be covered in forty-five minutes necessarily reduces it to a decidedly mnemonic test, and consequently the burden is somewhat lightened. At all events the young man that gains the approval of the jury certainly deserves the degree.

[1] *L'Écho de Paris*, Jan. 16, 1908.

The accompanying table shows the final results of the baccalaureate examinations for the last six years.

RESULTS OF BACCALAUREATE EXAMINATIONS, 1902–1908

Year	Candidates	Failed		Passed	Per cent passed
		Written	Oral		
1902	13251	4783	1723	6745	51
1903	13330	4779	1720	6831	51
1904	15193	5145	1980	8068	53
1905	12991	4090	1572	7329	56
1906	12007	3721	1293	6993	58
1907	11924	3692	1297	6935	58
1908	13374	4816	1418	6940	52

Since 1905, the new regulations of the program of 1902 have been in force. In that year the majority of the candidates presented themselves under the old conditions. Since then there has naturally been a rapid falling off, so that in 1908, only one hundred and fifty came under this caption, and next year there will be practically none. The sudden diminution in the number of candidates between the years 1904 and 1905 is probably due to the opportunity afforded by the new programs to break the secondary school course at the end of the third form and to leave the school with the reasonably complete notions given by the work of the first cycle. The total number of secondary school students certainly shows no such corresponding decrease at this point. As a matter of fact the public secondary school population has been slowly increasing throughout this period. The number of pupils leaving at the end of the first cycle is subject to wide variation. In the Paris lycées it is comparatively small, while in some of the provincial schools it frequently amounts to more than fifty per cent. Various causes are responsible for this: the changes of domicile and financial conditions of the parents; the desire to have the young man

take up the business of the father; the realization that the son is not likely to survive the severe competitive examinations he must pass in order to be admitted into any of the higher government schools (save the various university faculties). Although the noticeable increase in the per cent of successful candidates would appear to lend considerable color to this interpretation, the mortality even now seems very severe. The great majority of the unsuccessful keep coming back until they are finally successful or until they have reached the age limit that precludes their entering the particular state school they had in mind. Then they drift off into some department of the government service where the possession of the baccalaureate is not indispensable.

Special Preparatory Forms.

Besides the regular program of instruction already outlined, there are several series of courses especially designed to prepare for the higher government schools. The most important of these schools are the Polytechnic School and Saint-Cyr, both under the control of the War Department, the former an engineering school that fits for both civil and military careers, and the latter a military school that corresponds to our own West Point; the Central School of Arts and Manufactures, an engineering school for all departments of industry and public works that do not belong exclusively to the State; the Naval School in the harbor of Brest, corresponding to the naval academy at Annapolis; and the Higher Normal School, oftener known simply as The Normal School, under the direction of the Department of Public Instruction. This latter is the training school for university teachers and for secondary teachers of boys' schools. It has two sections, one for letters and the other for science. The candidates for the latter together with those for the Polytechnic School are enrolled in a class called the special mathematics form. The backbone of this course is naturally mathematics, and it includes advanced algebra, trigonometry, plane and solid analytic geometry, descriptive geometry, and mechanics, besides advanced work in physics and chemistry. The preparatory

courses for the Central School, Saint-Cyr, and for the Naval School likewise include considerable mathematics, but they are not so severe as the special mathematics form. The preparation for the letters section of the Normal School is given in a class known as the upper first form. There is no published program of instruction for this form. The classes are conducted by some of the ablest teachers of literary subjects to be found in the country. They know that their pupils have to face a very keen competitive examination at the end of the year and they choose that work from the program in the upper forms of the secondary course that will best fit for this ordeal. These advanced courses are by no means found in every secondary school, nor even in every lycée. Out of the eleven lycées of Paris that have upper grade classes, seven prepare for the Polytechnic School and the science section of the Normal School, five for the Central School, seven for Saint-Cyr, two for the Naval School, and six for the letters section of the Normal School. For the first five of these schools, the successful candidates are ordinarily fairly well distributed over the country, but for the last, the Normal School (letters), it is practically necessary for the student to come to Paris to study. In 1905, out of the thirty-two intrants, twenty-nine of them came from the lycées and the University of Paris.[1] For both sections of the Normal School, the work in these preparatory classes is really of university grade, for all these fellows already have the bachelor's degree and some have the master's. In fact, university students compete on equal footing with these advanced secondary students. The standard for the Polytechnic and Saint-Cyr is slightly inferior, for here the baccalaureate is not absolutely required for entrance. Save for a few peculiar cases, the certificate of the first part of the baccalaureate is compulsory, and the possession of the full degree gives a handicap of from fifteen to sixty points. The result is that entrance to these schools is practically on a baccalaureate basis.

[1] *Annuaire de la jeunesse*, 1907, p. 924.

The admission to all these schools is solely by competitive examination, as is universally the case in France in government appointments. If a candidate is unsuccessful one year, he usually keeps trying until he succeeds or else is barred out by the age limit. It often happens that many of the candidates for these higher institutions spend two and sometimes even three years in this secondary graduate work. In visiting these upper classes, one cannot help feeling that the competitive examination at the end of the year hangs over the class like the sword of Damocles. It absolutely determines the choice of subject matter as well as the character of the instruction and makes the work more of a cramming process than a culture course. One very able teacher told me that the method he followed in preparing his class in history for Saint-Cyr was much different from that that he used in his other classes. He frankly admitted that there was less attempt to develop the minds of his pupils than to fill them with information by way of preparation for the examination. Now that the great general prize competition (*le concours général*) has been abolished,[1] the renown of a school is measured largely in terms of the success of its pupils in these competitive examinations. In the general entrance halls of the lycées it is not unusual to find tablets containing the names of former pupils that have thus reflected credit upon their school. Intellectual attainment in France commands a higher premium than athletic skill.

[1] Abolished since 1904.

CHAPTER VIII

THE SCHOOL AND ITS LIFE

IT is almost a truism now to say that the early secondary schools on the continent were established as clerical training schools. Two of those in Paris that claim such a foundation to-day run far back in history; one, the present Lycée Saint-Louis, was the ancient Collège d'Harcourt, which dates from 1280, and the other, the Lycée Louis-le-Grand, was the original Jesuit college in Paris, founded in 1564–65. Although Saint-Louis was interrupted during the period between the time of the Convention and 1820, Louis-le-Grand has had practically a continuous existence ever since its foundation, and is consequently rich in famous students and in traditions. Both these schools are essentially upper form institutions, for the lowest class at Louis-le-Grand is the fourth form, and Saint-Louis has only one class in the first cycle, one of the third form divisions. These two lycées are practically complementary to each other, for they represent two different types of disciplines, the former having only Latin pupils, and the latter being exclusively a scientific school. They are both fed from the Lycée Montaigne, purely an elementary lycée of the Third Republic whose classes stop where those of the two older ones begin. Of the other Paris lycées, Henri IV., which is also on a very old foundation, Condorcet, and Charlemagne were in existence at the founding of the new University by Napoleon. The Collège Rollin, supported entirely by the city of Paris, and so nominally reckoned among the municipal colleges, is nevertheless the peer of the lycées in name and in fact. Although claiming a very

The Paris Secondary Schools.

ancient descent from the old Collège Sainte-Barbe, it actually dates from the second decade of the nineteenth century. The Lycée Michelet at Vanves, just outside the walls of Paris, was established under the last Empire, while all the others, Janson-de-Sailly, Buffon, Voltaire, Carnot, and Lakanal, have been created since the advent of the Third Republic. The last named, like Michelet, is also outside Paris, although it is likewise reckoned as one of the Paris lycées. The remaining boys' public secondary school in Paris, the Collège Chaptal, on a municipal foundation, is a kind of hybrid institution. It is a combination secondary and higher primary school that is governed by special legislation; from one point of view it is classed with neither, yet from another it must be reckoned with both.

Size of Schools.

Thus there are, all told, in Paris twelve boys' lycées (including the lower form Montaigne) and two municipal colleges. These range in size from Lakanal with six hundred pupils to Janson-de-Sailly with twenty-one hundred. In these twelve lycées there are approximately twelve thousand pupils, while in the ninety-nine provincial lycées there are about forty-five thousand more. This gives roughly one thousand per lycée in Paris, and rather less than half that number for each of the country schools. No city except Paris and Lyon has more than one boys' lycée, although in cities of the second rank, like Marseille, the schools are badly overcrowded. The two municipal colleges in Paris have about twenty-five hundred pupils, and the two hundred and thirty others about thirty-four thousand. The ordinary communal college is thus seen to be a comparatively small school, averaging less than one hundred and fifty pupils each.

Situation of Schools.

There is considerable similarity about the general architectural plan of the French secondary schools. Although the type was designed to accommodate boarding as well as day pupils, the idea of placing these schools outside the centers of population has not yet received any general recognition, and they are

still essentially city structures with all the disadvantages that such a situation implies. The lycées Michelet and Lakanal, which the government has established in the environs of Paris as an attempt to test the question of the suburban school, as well as several well known private venture schools have not attained the success one might have expected. The Paris parent still chooses to confine his boy within the cloistral precincts of the city lycée with its restricted life rather than to send him to the suburban lycée with its pure air and unlimited sunlight. In the city school he can easily see his child any noon or afternoon, while he is obliged to spend a half day in going out to the suburbs and back. The French are passionately bound up in the life of their children and cannot bear to be separated from them. In this case their intense love reaches over into the bounds of selfishness, for they do not realize that in gratifying themselves they are at the same time jeopardizing the welfare of their children. The French lycée is the lineal descendant of the old *collège*, although, thanks to the merging of many of these earlier foundations at the time of the expulsion of the Jesuits and the subsequent destruction during the anarchy of the Revolutionary period, it is usually difficult to trace any direct connection between them. The old colleges were boarding schools, so it was not unnatural that the new lycées should continue this characteristic organization, especially in view of the large number of national scholarships, which included food and lodging as well as tuition, that were founded by Napoleon. The result is a public secondary school organization that does not exist in Germany, England, or America. The last quarter of the nineteenth century saw such an alarming falling off in the number of boarding pupils as to suggest a popular revulsion against that form of education, but since the reform program went into effect the boarding pupils have numerically held their own, although their numbers have not increased with the general growth of the schools.

The urban situation of the schools and the necessity of

providing recreation facilities for the resident pupils have gone far toward determining the character of the buildings. In general each lycée occupies a whole city block, the buildings hugging the streets on each side and enclosing a hollow square within, that is more or less broken up by interior structures into separate courts for the different grades of pupils. The lycée Janson-de-Sailly, completed about fifteen years ago and situated in the newer and more fashionable quarter of the city between the Trocadéro and the Bois de Boulogne, may fairly be taken as one of the best types of lycées in France to-day. It covers the greater part of a block and includes more than eight acres of ground, one third of it being occupied by the various buildings and the remaining two thirds being left free and divided into courts liberally supplied with trees. The buildings are chiefly three-story structures of brick and stone fireproof construction with the greater part of the ground floor given over to study and class rooms, and the second floor to laboratories and dormitories.[1] Ten of the fourteen dormitories are on this second floor, the other four, together with the quarters for the domestics that are lodged at the school, being on the third floor. The gymnasium, the finest I have seen in all France, occupies the very center of the plot of ground. Between this and the entrance building, which contains the doorkeeper's apartments and the school parlors, lies the magnificent court of honor. The court of honor, an essential feature of every French secondary school, together with the head master's garden, is rarely profaned by the unholy steps of the ordinary youngster. At Janson-de-Sailly, the entrance building, the court of honor, the gymnasium, a small service court, and the kitchen and boiler room, situated one behind the other, cut out a middle section of the lycée grounds. The adjoining buildings thus form a large oblong court on either side, which is further subdivided into two nearly square courts by a covered open-air playground containing the necessary toilet accessories. These four courts are entirely separate, one

A Paris Lycée.

from the other, so that each of the so-called colleges[1] that make up the whole lycée has a playground reserved exclusively for its own pupils. There is still another court beyond the outer quadrangle of buildings set apart for the very small children of the infant class, or as one teacher facetiously called them, the "microbes." The class rooms are ranged about each of these courts, those on the ground floor opening directly into it, and those on the floor above opening into a long corridor that usually extends along the court side. This plan of construction certainly facilitates ingress and egress, and in case of need it would be possible to empty the class rooms in a remarkably short space of time.

Interior Arrangements.

Most French class rooms are rather barren looking. Those at Janson-de-Sailly share the ordinary characteristics save that they are well heated from the French point of view, by a central steam heating system, and they are moderately well lighted. Here the chief source of light is from windows along the street side, ordinarily with a secondary source derived from one window and a glass top door opening on the court. The desks are so placed that this principal light is always at the left of the pupils, although its quantity is appreciably diminished by widespread use of ground glass. The plain walls, bereft of ornamentation, are unbroken save by an occasional series of charts hanging on a couple of metal pegs in the rooms where geography or history classes meet, and a small blackboard, varying in size from 3 by 4 to 4 by 8 feet, over the high platform on which the teacher's desk is placed. The unhygienic cloth or the yet more unsanitary dry sponge still provides the sole means of cleaning this board. On very rare occasions one finds a wet sponge early in the morning, but this is so unusual as scarcely to merit mentioning. The size of the blackboard necessarily modifies the

[1] This word college has nothing in common with college signifying a municipal secondary school, but it is used in much the same way that we speak about a college of arts, a college of science, etc., to indicate the various parts of a larger organization.

method of instruction, for it is practically impossible to send more than one pupil to the board at one time. The French teacher takes the position that whatever is worth putting on the board should have the constant attention of all the pupils. Apparently this sacrifices speed, but when one considers the total amount of work accomplished the real progress does not seem to have suffered. Pupils' desks are rarely found in the secondary schools, the ordinary substitute being a kind of "form" with occasionally a single shelf below for books. The form is built for four pupils, and the plain wooden benches without backs that accompany it are arranged for two pupils each. The seating accommodations would thus be uncomfortable enough for a short period, but the discomfort must be decidedly aggravated by the end of the fifty-five or sixty minute recitation period which prevails everywhere. The forms and benches in the science lecture rooms are ranged in a series of banks that rise rapidly from the demonstration table at the front of the room. It is by no means unusual to find a similar arrangement in the ordinary class rooms, although in the newer buildings they are evidently breaking away from that old custom. Scattered along the back and one side of the room is a series of hooks for hats and capes, for floor space is too valuable to be taken up with coat rooms. Some of the schools, however, have a combination dressing-room and lavatory near the main entrance to each court, which is used in common by all the pupils belonging to that particular college of the lycée. One is struck by the absence of any assembly hall, but as there are no general student assemblies the reason for this omission is evident. The only occasion when such a hall might be of service would be at the annual distribution of prizes, and at this time the gymnasium or some public hall is called into service.

Save for Henri IV., Condorcet, Charlemagne, and possibly Saint-Louis, all the Paris schools must be considered as modern buildings. The older buildings are really lamentable from the hygienic point of view, and in some respects the

new ones are not much better. For instance, Louis-le-Grand which was almost entirely rebuilt less than fifteen years ago at a cost of upwards of nine millions of francs and practically forms a part of the group of buildings of the new university, is outwardly a magnificent structure, architecturally considered, but for school purposes it is wofully disappointing. Either the architect was ignorant of the essentials of a school building or else he deliberately sacrificed hygienic conditions to artistic effect. Out of the dozen or fifteen class rooms I visited here, I failed to find one that was even moderately well lighted. I have never seen so many pupils suffering from poor eyesight as I found in the schools of Paris. I was consequently quite ready to believe a prominent oculist when he told me that most French people still looked upon the theory of eyestrain as a physician's notion. The French people seem to prefer less heat than we do, so it is perhaps hardly fair to measure the temperature of their rooms by our standard. Sixty-five degrees Fahrenheit is very warm for a French class room, but I found one room in one of the Paris lycées where the temperature was under forty-five degrees. It was so cold the pupils could hardly hold their drawing pencils, yet the two stoves were absolutely unable to raise the temperature and there was apparently no procedure available either for sending the pupils to another room or for postponing the work entirely. It is gratifying to find an occasional voice raised in protest against the unsatisfactory condition of many of the lycées from the school point of view, and demanding that the architectural commission, to whom the construction plans are all submitted, should be more largely composed of practical school men. One of the Ribot commission declares that the failure to do this is responsible for "those very beautiful buildings which have cost so dearly, but in which serious errors have been committed from the educational point of view at the expense of that intellectual and moral activity which should be the center of an educational institution."[1]

Other Paris Schools.

[1] RAIBERTI, *Régime des lycées*, p. 17, in *Enquête*, VI.

All the schools that have boarding pupils make some provision for bathing arrangements. Some of the Paris lycées arrange to send their pupils to nearby public baths, and in this case each one has a hot tub bath at least as often as once a month, as well as more frequent foot baths. In some of the schools the tubs that were formerly installed there have been replaced by the more convenient showers. In one of the Paris schools, where unusual importance seemed to be attached to bathing, every interne had a warm shower every Wednesday and a warm foot bath every Saturday. The room for the latter presents a peculiar appearance with its row of a dozen or fifteen little tubs ranged along the walls in front of a long, low bench. The temperature of the water is regulated by an attendant, and the tubs are all filled and emptied simultaneously by a mechanical contrivance manipulated by the same operator. The arrangements at this school and the opportunities for use were decidedly the most favorable that I have found in all my experience in France. The bath does not play the same part in continental life that it does in our own, partly, perhaps, because the children are less given to those violent forms of athletic exercise that make such conveniences essential. In France the shower never forms an accessory to the equipment of the school gymnasium.

Baths.

Although for some years now the gymnastic work in all the schools has been patterned almost exclusively after the Swedish system, each secondary school has its gymnasium well equipped according to the French standard. The ordinary type is a good-sized hall, the smallest I have found being at least fifty by thirty feet on the floor, and two stories high, in the main well lighted, but not always well ventilated. In the better schools about half the ground area is floored over, the rest, dropped somewhat below the ordinary level, being covered with eight or ten inches of sawdust or tan bark. All the fixed apparatus is on or over this latter section, where the soft surface forms an inexpensive substitute for the gymna-

Gymnasium and Gymnastics.

sium mat. Although the upper layer is removed from time to time and water used with reasonable frequency, it still leaves much to be desired from the hygienic point of view. The apparatus is all simple, consisting chiefly of wands, dumb-bells, parallel bars, flying rings, climbing ropes, a horizontal bar, a horse, and a jumping board. In the larger schools with their numerous classes, it is not unusual to find two classes going on simultaneously, one working at the heavier apparatus in the pit, while the other is performing the Swedish evolutions on the floor. In good weather this latter work is often carried on in the open air. The hour and a half per week required of all except the candidates for Saint-Cyr (they have an hour extra) is cut from the recreation. It is ordinarily given in half-hour periods. One never finds any special dress for any of the gymnasium work, the boys merely divesting themselves of their coats and waistcoats; there is consequently no call for the elaborate system of dressing-rooms, lockers, and showers that form such an essential feature of our own gymnasiums. In the smaller provincial schools, this gymnasium equipment is often very primitive. At times the building is open to the air on one side, and the floor is almost invariably covered with a thick layer of dry, mealy loam.

Athletics.

As to any general widespread interest in athletics in the secondary schools, such a thing practically does not exist, partly because there is no time for such diversion, but rather because whatever fondness for such activity one finds in France to-day is chiefly an acquired characteristic. There does not seem to be that innate love for the athletic life that forms such a marked trait of the Anglo-Saxon youth. Most of the Paris lycées have their Rugby and Association football teams, and even teams for some of the events that appear upon our regular track and field day programs, but a perusal of the weekly schedule of the French schoolboy will show how impossible it is for him to do any systematic work in these sports. On Sunday mornings in pleasant weather, one may often see groups of

boys journeying out into the suburbs for some inter-school contest, but the athletic life of the school is limited to encounters of this sort, where general enthusiasm and the expression of strong school spirit are rarely found in any great degree.

No secondary school for internes is complete, even in Paris where hospitals are plenty, without its infirmary. Either occupying an entire building or else far removed from the common living quarters, this infirmary with its separate kitchen and dining room, with its contagious ward, its nursing staff, and the one or more school physicians at a moment's call, is perfectly capable of handling any ordinary situation that is likely to arise. Of course in serious surgical cases recourse is had to the city hospitals, but in the simpler illnesses the pupil is much better cared for at the infirmary than he could be at a large hospital or even at home.

Infirmary.

The apartments of the head master, the censor, the bursar, the general surveillants, and the lodgings provided for some of the ushers and other members of the administrative staff as well as the domestics that live at the school, to say nothing of the accommodations for the boarding pupils, necessarily make Janson-de-Sailly an establishment of considerable size. Although its dormitories were designed to accommodate four hundred and fifty pupils, there were only about two hundred actually in residence during the year 1906–7. A similar condition of affairs seems generally to prevail, so that there is a veritable crisis in the boarding school side of the secondary school system. For many years now the number of such pupils in all the lycées has been growing relatively smaller, in spite of the efforts that have been made to ameliorate the situation. Consequently, the three newest lycées were not built to accommodate boarding pupils. At Janson-de-Sailly, the dormitories are fine, spacious rooms, with accommodations for thirty-two boys in each.[1] These rooms are all high-

Boarding Pupils.

[1] The only boys' state schools I found where there were private rooms were the Collège Rollin in Paris and the Lycée Lakanal just outside the walls

studded, light, and airy, with windows along each side, one between each two beds. Midway down one side are the surveillant's quarters curtained off from the rest of the room. These are nothing but a raised platform containing a chair, a bed, and a toilet table, and so placed that the surveillant can see every part of the dormitory. On either side of this platform is a door leading to the lavatory. Here each boy has his own marble wash basin with space for toilet articles and a hook for his towel; he is not allowed to keep anything in the dormitory during the day. The only furniture in the dormitory is the single beds, with a small floor rug beside each and a clothes hook on the wall for use during the night only. The extra suits and shoes of all the boys in the dormitory are kept in individual, open lockers in a separate room opening out of one end of the dormitory, and the underclothes, handkerchiefs, neckwear, bed and table linen are neatly piled in a series of small lockers in still another room. These are cared for by a motherly looking woman who keeps everything in good repair.

When the boarding pupils enter the lycée, each must be provided with an entirely new outfit of clothes and supplies, containing at least the articles enumerated below:[1]

	Period of Renewal
1 cape of blue cloth with detachable hood	3 yrs.
1 jacket (or frock coat, for pupils of first form and above), blue cloth, palm leaves embroidered in gold on points of collars, and gilt buttons of the lycée	1½ "
2 prs. winter trousers, blue cloth, one pr. each	1 "
1 pr. trousers, cheviot (for pupils of the little lycée only)	1 "
2 winter waistcoats, blue cloth, single row of small gilt buttons, one every	1½ "
2 prs. summer trousers, of light wool, one pr. each	1 "
2 summer waistcoats, of light wool, one pr. each	1½ "

at Sceaux. Here the old dormitories had been cut up into a series of cubicles, so to speak, by erecting a series of partitions about eight feet high between the beds. The upper part of the room was all open so as to facilitate the surveillance, but even this arrangement gave each boy some measure of privacy.

[1] Prospectus of the Lycée Janson-de-Sailly, at Paris, p. 25. The variations between this and those of the other lycées and colleges are merely verbal.

2 winter coats, of wool, one pr. each	1 yr.
2 summer coats, of cotton and wool, one each	1 "
1 cap, blue cloth with gold palms, one each	1½ "
1 tam-o'-shanter, for winter	1 "
3 prs. lace shoes	As necessary
6 linen sheets, 3m. 30 by 2m. 10	" "
12 linen towels, 0m. 94 by 0m. 73	" "
10 white shirts	" "
4 night shirts	" "
18 linen handkerchiefs	" "
4 prs. cotton drawers	" "
4 black cravats, one every	3 mos.
14 prs. cotton stockings	As necessary
1 toilet set including comb, fine comb, hair brush, comb brush, clothes brush, nail brush, tooth brush,	" "
1 stamp for marking clothes	" "
1 laundry bag	" "

This clothing must conform to a particular type. The cost is 458 or 478 francs depending upon whether the boy wears a jacket or a frock coat. The parents are at liberty to supplement this list with such additional clothing as the boy is accustomed to wear. If the parents so desire, the regulation supplies will be furnished by the lycée and charged upon the term bill. The lycée will also look after the repairs and the necessary renewals at an annual cost of 160 francs. No mention is found here of collars or cuffs. If these are attached to the shirts, they are reckoned with the latter. If detached, as the collars are usually, the laundry work is done outside the school and it is always at the expense of the pupil. Within the school, the boys are at liberty to wear ordinary clothes, but nobody may go out at any time without the full regulation blue uniform of the lycée. When the pupil severs his connection with the school, all his property is returned to him, save the sheets and the towels, which are retained for the use of the infirmary.

In applying for admission, every pupil must submit:

1. His birth certificate;
2. A certificate attesting that he has been vaccinated;
3. A class certificate, if he comes from a Paris lycée or college;
4. A certificate of good conduct if he comes from any other school;
5. A certificate testifying that his account at any other lycée he may have attended is paid; and
6. A bulletin containing, besides the customary personal and family information, the address of his correspondent in Paris, the names of the persons whom the parents authorize to take him away from the school, the names of the persons authorized to visit the pupil at the school parlor, and finally the religious persuasion of the boy, and whether or not he is to attend religious services and to receive religious instruction.

Some of these requirements, notably those in the last section, appear rather peculiar to one accustomed to the free open life of our American schools, but the more one sees of continental life, the more one is impressed with the innumerable restrictions that surround the individual from the moment he comes into the world until he takes his leave therefrom. Yet France is nominally a republic like our own. The correspondent referred to above is a person designated by the parent, in case he does not live in Paris, to act as his personal representative as far as his boy's relations with the school are concerned. The correspondent pays the pupil's term bills, agrees to take him away from the lycée at least once a month, and stands ready to receive him at any time in case it becomes necessary to send him away from the school for any reason whatsoever.

Correspondents.

The parents likewise designate to the head master all the persons who are authorized to call to take the sons away from the school. Each pupil is entitled by right to a leave of absence every alternate Sunday, while on the other Sunday he is granted this by favor in case the character of his work and his conduct are above reproach. On ordinary days no pupil is allowed to leave the school except for very unusual reasons. On Sundays

Leave of Absence.

even, the pupil may leave the school only between certain hours, between eight and eleven, between half past twelve and half past one, and between quarter past four and quarter past five. In any case he must be back by ten o'clock in the evening. Before leaving, each boy receives a card on which are inscribed the time of his departure and the time he is to come back. On his return he must deliver this to the general surveillant signed by the person at whose house he has been. Pupils under seventeen years of age must be called for by their parents, guardians, correspondents, or other persons specially delegated for this purpose by the parents and approved by the head master. In case any other person claims this privilege, he must present a letter dated and signed by the pupil's family. Under certain conditions and at the special request of the parents, boys under seventeen may be allowed to leave and return unaccompanied by an older person. In the case of boys over seventeen, this permission is granted only when the parents express such a desire. Such is the care with which these comings and goings are regulated that no boy is ever under any circumstances allowed to leave the school alone unless the head master is assured in writing, either by a note attached to the leave card of the previous week or by letter addressed to the school, that the proper person is expecting the boy on the following Sunday. Even when there are several consecutive holidays, the pupils are not allowed to sleep at home save at the written request of their parents.

Correspondence and Visitors.

The boys in the schools in France are as much restricted in the matter of their correspondence as are the pupils in the most exclusive girls' boarding schools in America. The letters are all carefully inspected, and parents are urged not only to countersign all their own letters, but also to deposit with the school authorities the autograph and the signature of everybody with whom their children are authorized to correspond. In general the pupils' visitors are restricted to their relatives and "correspondents." If other friends wish to see them, they must

present to the school authorities a written request from the parents to that effect. All visits take place during the chief recreation periods, between half past twelve and half past one, and between half past four and five o'clock. Such is the strictness with which this school life is dominated that brothers belonging to different divisions in the same lycée are allowed to see each other only during recreation periods and in the school parlor.

Classes of Pupils.

Although the presence of boarding pupils at the public secondary schools in France is probably their most striking characteristic to a stranger, not all or even the major part of the students fall in this category to-day. In the original colleges practically all the pupils were in residence. Even at the time of the founding of the university by Napoleon, the internes still formed the major part of the secondary school population. Since that time there has been almost a steady decline in their relative number, as the table on the following page will show.

There are four general categories of students: boarders, half boarders, supervised day pupils, and ordinary day pupils. In all the secondary schools save five lycées in the city of Paris, these four classes are all represented, although in the great majority of the municipal colleges, the boarding department is carried on at the private initiative of the head master. The half boarders, as well as the day pupils, live at home, or else in certain private families or pensions sanctioned by the head master. The former enjoy all the rights and privileges of the boarding pupils, except that they have only two meals at the school and they sleep outside. Their books and school supplies are included in their regular fees, and they are likewise called upon to furnish their individual table linen. They come to school in the morning at eight or half past, according to the time of the morning class, and they remain all day until half past six or seven o'clock, the close of the last study period. During the intervening hours they are to all intents and purposes regular boarding pupils,

PUBLIC SECONDARY SCHOOL POPULATION (BOYS) 1809-1906 *

Year	Boarders		Half Boarders		Day Pupils		Totals	
	S	C	S	C	S	C	S	C
1809	5782	5312	145	276	3141	12919	9068	18507
					(2188)		**27575**	
1811	5651	7177	248	580	5027	16401	10926	24204
					(2566)		**35130**	
1813	5709	8931	427	848	8356	19730	14492	29559
					(4620)		**44051**	
1816	4068	5461	172	499	4373	12532	8613	18554
					(2774)		**27167**	
1821	4973	6185	251	577	6834	15963	12058	22799
					(4185)		**34857**	
1826	5263	7051	328	603	8291	17727	13882	25490
					(4885)		**39372**	
1831	5164	7557	299	711	8988	16863	14451	25348
					(4967)		**39799**	
1836	5474	7484	433	842	8962	14286	14869	22925
					(4697)		**37794**	
1841	6741	8996	586	1134	9950	14905	17277	25324
					(5175)		**42601**	
1851	7011	8266	880	1183	11378	16869	19269	26318
					(7126)		**45587**	
1861	13318	9742	2670	1674	12387	18497	28375	29913
					(9402)		**58288**	
1871	14486	9950	3186	1500	17346	18280	35018	29730
					(15059)		**64748**	
1881	19523	13980	5243	2441	22969	24883	47889 [1]	41304
					(21040)		**89193**	
1891	17385	10235	5353	1652	29503	20155	52241	32042
					(27895)		**84283**	
1901	12744	10077	6008	2244	33571	21051	52323	33372
					(27766)	(15194)	**85695**	
1906	12323	10772	5271	2359	40016	23485	57610	36616
					(32152)	(17315)	**94226**	

S = State secondary schools, during the years covered by this table, first called lycées, then royal colleges, and finally lycées again.
C = Communal or municipal colleges.
The ordinary figures under "Day Pupils" from 1809 to 1841 do not fairly represent the real state of affairs, for they include those pupils living at institutions of various sorts who are brought to the school in the morning and taken away again at night. These latter are practically boarding pupils that live outside the school. For the years 1901 and 1906, the ordinary figures include also the supervised day pupils. In every case the figures in parentheses under the same caption indicate the number of ordinary day pupils. The break between 1813 and 1816 is significant. If the figures for all the years were included, a similar state of affairs would be noted after 1830, 1848, and 1870, thus showing how quickly the school population reacts to political disturbances.

[1] There is some discrepancy in the official figures here.

* Compiled from VILLEMAIN; *Statistique*, 1876, 1887; *Enquête;* and *Budget*, 1908.

both having their meals, their recreations, and their supervised study periods in common. The ordinary day students take no part in the life of the lycée outside the regular class work, while the supervised day students enjoy the additional privilege of studying at the school after the classes of the day are over under the supervision of the ushers. Except for the time between the close of the morning and the beginning of the afternoon classes, their hours at the school correspond to those of the half boarders, but they do not share in the text-book privileges of the latter. The parents of both these classes of pupils are kept in much closer touch with the work of their children than are those of the ordinary day pupils, by means of a system of daily report books. In these the usher in charge of the study room enters the marks that each pupil has received during the day, whether given by himself or by the class teacher, together with any communication the administration wishes transmitted to the parents. These report books are sent home every night and must be brought back the next morning, signed by the parent or his duly authorized representative. The pupils that come and go are strictly forbidden to undertake any commissions outside for the boarding pupils. Although boy-like this regulation is doubtless transgressed, it is not often. In fact there is little opportunity for any collusion, for they have no chance to see each other privately. In some of the largest lycées the internes are sometimes in classes by themselves, and in any case, whether in the class room, in the study room, or on the playground, they are under constant supervision.

Fees.

The fees charged by the State for this instruction show a very wide variation, especially in the provincial schools, but it is certainly questionable if the real worth of the instruction varies as greatly. The accompanying table shows the amount of these fees, according to the revised schedule, each amount being a multiple of nine in order to facilitate the book-keeping:

ANNUAL FEES IN PARIS AND PROVINCIAL LYCÉES[1]

Schedule, December, 1912 (Amounts in Francs)

	Day Pupils		Supervised Day Pupils		Half Boarders		Boarders	
	Prov.	Paris	Prov.	Paris	Prov.	Paris	Prov.	Paris
Infant Class	45–81	90–153	63–126	135–243	243–396	495–603	405–720	909–1008
Preparatory-Seventh Form	54–171	108–324	72–243	144–414	297–423	504–765	534–891	1008–1215
First Cycle	81–225	306–423	126–315	396–513	396–621	801–1035	630–1107	1350–1557
Second Cycle	108–270	351–474	153–369	441–567	441–666	900–1134	711–1305	1530–1611
Special Preparatory Forms	126–477	351–720	180–621	441–810	459–873	855–1278	711–1404	1710–1773

Prov., Provincial Lycées Paris, Paris Lycées

The official regulations contain even more divisions than are represented here, but the table has been condensed for the sake of simplicity. The very wide extremes found for the preparatory-seventh form above may partially be explained on the score that these figures extend from the lowest priced tenth form to the highest priced seventh form. In spite of all the care expended in making an equitable distribution of charges, however, there are still some manifest inequalities. It is obviously unfair to charge some of the pupils in the second cycle in the Paris lycées 1,125 francs for their expenses aside from tuition fees, while pupils in the special preparatory classes at the same school are paying only 1,026 francs for the same privileges. A careful study of the fees at some of the provincial schools will bring out even stronger injustices.

[1] Compiled from *Annuaire de la jeunesse*, 1913, pp. 238 *et seq.*, 586.

The fees of the boarding pupils cover instruction, text-books, and class room supplies, food and lodging, including bedding (aside from linen), washing, mending, simple drugs and medicines prescribed by the visiting physician, and the ordinary repairs to the foot wear.

Extras.

The lycée makes ample provision for pupils that desire private lessons outside the regular school subjects, for attached to every school are teachers of the piano and other musical instruments, fencing, special gymnastics, dancing, boxing, swimming, and riding, that are recommended by the administration. Instruction in these accomplishments is naturally an extra for which the families arrange directly with the teachers or through the mediation of the bursar as financial agent only. The time for this work is all taken from recreation periods, but no boarding pupil is allowed to participate in any of these activities without the approval of the head master. Except for the fencing and the horseback riding, which are prescribed for the candidates for Saint-Cyr, no one of these activities engages the attention of any large portion of the internes, the poor fellows being so crowded with work that the time would fail even if the inclination were present, but in walking about the grounds any afternoon during the recreation periods, one will commonly hear the click of the foils or the subdued scraping of a distant violin.

Discipline.

The discipline in the French lycée of to-day is mildness itself compared to the conditions that existed prior to the reform of 1890. At that time the rigor of the military code that had prevailed since the First Empire was largely abolished, the roll of the drum as the signal to mark the limits of the classes and the various other activities of the daily life being perhaps the most striking heritage of the former régime. Nowadays the pupils are allowed to talk in a human fashion at meal time, while changing classes, and during the gymnasium period. Even though the teacher of the present has lost some of the char-

acteristics of the martinet of old days, it is decidedly unusual to find evidences of any close personal feeling between the teacher and the pupils to-day. The very great majority of the teaching staff seem to be interested in the life of the pupils in the abstract rather than in the concrete. Outside the narrow limits of the class the teacher is absorbed in his own work and in his own professional advancement, for he takes the position that in the long run this is the most effective way of insuring the intellectual growth of his class as a whole. This makes the attitude of the devoted men I have met who take the opposite view of their own personal obligations in their teaching work stand out all the more clearly. In the main the relationship between teacher and pupils seems to be intellectual and collective rather than social and individual. Theoretically the head master is the unifying element in all the influences brought to bear upon the pupils, but where the school population numbers hundreds, and even passes the thousand mark, as it does in several instances, the task is manifestly impossible of realization. Although this latter evil was very clearly indicated in the report of a committee appointed to study the question twenty years ago,[1] no marked amelioration of conditions seems yet to have been effected.

Punishments and Rewards.

The chief incentive to stimulate the pupils to work is undoubtedly provided by the marking system. One can hardly spend a half hour in any class without being struck by the importance attached to this. Every individual recitation is valued by the teacher ordinarily on a scale of ten, and the pupil eagerly awaits the measure of appreciation accorded his work, and usually records it in his report book. It must be noted in this connection that the conduct of the recitation in France presents certain marked characteristics. It is a most formal ordeal for the pupil, for he is ordinarily called up before the class and is subjected to a searching inquiry. The teacher

[1] *Rapport de la Sous-Commission de discipline*, 1888, *Recueil de règlements relatifs à l'enseignement secondaire*, p. 735.

is thus able to arrive at an accurate appreciation of the pupil's comprehension of the subject, or at least of his knowledge of the lesson of the day. Under this system, a mark of zero is seldom given. All written work is carefully valued, this time upon a scale of twenty, and the marks are usually announced to all the class when the papers are returned. It is not at all uncommon to see half a dozen boys taking down the marks of all their comrades, for thus they are able to keep track of their relative positions in the classes, and their chance for distinction at the regular periods. All the marks, whether for recitations or for written work, whether given by the regular teachers in the class room or by the usher in the study room, are sent to the censor every day and by him transmitted to the head master. In this way the administration keeps in daily touch with the work of each individual pupil in the school, and any slighting of work is promptly communicated to the parents in the case of the outside pupils or dealt with in the school itself in the case of the internes. Several poor marks are likely to draw down upon the pupil some more severe punishment. He may have to do his work over again partially or entirely; he may have extra work assigned to be done; or he may be required to return to school on Thursday, the regular secular holiday in France, or on Sunday morning for one or two hours of work. In more severe cases the internes may be deprived of the regular Thursday or Sunday walk, or even be denied leave of absence on Sundays or holidays. This latter punishment is comparatively rare and is never imposed except in instances of real gravity. Pupils are sometimes excluded from the class or study room and sent to the censor with a note. This is rather a serious punishment and is likely to result in the infliction of one of the penalties just mentioned. Finally there is temporary or permanent exclusion from the school. The head master has control of all the severer punishments, save that of exclusion which is pronounced by the disciplinary council. This is a body composed of the head master as president, the censor, five pro-

fessors, and a general surveillant and two ushers chosen by their colleagues, which was instituted to secure the co-operation of the various factors of the administration in cases where severe disciplinary action had to be taken. Except in most unusual cases, a warning always precedes the imposition of the extreme penalty. It is worth noting that the functions of this council are not confined to punishment, for pupils that have particularly distinguished themselves may also be called before it to receive its congratulations.

Aside from the records of daily work already referred to,[1] formal reports are sent out every three months for the upper division and twice as often for the other pupils. These trimestrial reports are of considerable importance. They are made up for each class or each section by all the teachers of that particular group in common meeting. Furthermore the head master appears in person before each class to make public announcement of the grades received by the various pupils, and to add his personal comments of encouragement or reproof. At these same teachers' conferences, one or two pupils are selected from each class on the basis of all-around achievement for inscription upon the roll of honor of the school. This is posted in a conspicuous place in the entrance hall in plain view of pupils, parents, and visitors, there to remain until a new selection is made at the end of the next quarter.

The grand gala day of the whole year is the distribution of prizes which marks its close. Under the presidency of the mayor of the commune or the arrondissement, it becomes a festive occasion of considerable local significance. The pupils receive much good counsel in a lay sermon preached by one of their masters or some invited guest along the traditional ethical or patriotic lines; the parents are flattered if their child's name appears in the inordinately long prize list; and a widespread feeling of good fellowship is engendered toward the State in general and toward the lycée in particular. The distinctions are

Prizes.

[1] *Cf. supra*, p. 166.

awarded not only on the general average of the work of the year, but on the results of the marks obtained in the *compositions*. These latter are no whit different from quarterly examinations, save that their chief function appears to be to furnish the basis for the distribution of the above distinctions. Aside from the hardship of laying so much stress on three single examinations, the chance for possible injustice is further enhanced by doubly weighting the last examination in each series. Thus although these papers are all marked on a scale of twenty, the importance of this latter in the prize competition is determined by doubling the mark originally obtained. It is gratifying to find here and there a growing opposition to this system of *compositions* and prizes, although one has little ground for sharing the opinion of one optimistic censor who declared that the abolition of these two evils was already in sight. The prize list of one of the Paris lycées at the close of the year 1906–7[1] contained nearly twenty-eight hundred names, accredited with various degrees of excellence varying from first prizes to mere honorable mentions. These were all gained by the pupils from the fourth form up, who make up about half the twenty-one hundred boys at the school. It would thus almost appear to be a mark of greater distinction not to have one's name upon the prize list. Such a custom seems quite incomprehensible to an American, but the whole question becomes lucid enough when one recalls the rôle that the decoration plays in the French national life. The recipients of these state favors range all the way from the humble workman who receives a few sous per day added to his ordinary wage to the illustrious scientist or man of letters who is justly proud of being admitted to the "Immortals." In January, 1908, at the annual distribution of honors, the French government conferred no fewer than five thousand three hundred and seventeen decorations,[2] or one for every seven thousand five hundred men, women, and children in the

[1] *Lycée Janson-de-Sailly, Distribution solonnelle des prix, 31 juillet*, 1907.
[2] *Journal Officiel*, Jan. 20, 1908.

land. It is such a generally recognized means of stimulation to effort that the great number of honors conferred by the school above occasioned no surprise. The French point of view on the treatment of the question of prizes is clearly shown in a report on that subject in 1888: "The prize is an excellent recompense in itself. To give a good book as an encouragement to a pupil that is fond of study, in other words, to put into his hands an opportunity for work and further progress, what could be wiser? . . . The prize is only an addendum and a symbol; the real recompense is the publication of the results of the work."[1]

Scholarships.

Although some of the very early colleges had a certain number of free scholarships, the system as it is at present administered owes its origin to Napoleon. At first the basis of selection (for the scholarship holders were to be appointed by the First Consul from among the children of soldiers or public functionaries who had died in the performance of their duty) furnishes a further indication of the tendency of his government to create an office holding class. The free tuition in the lycées and colleges to-day granted to children of primary and secondary teachers, although nominally intended to provide an additional perquisite to a poorly paid class of individuals, is a survival of that earlier custom that is pointing in the same direction. The danger of such a tendency has already been signalized: "The great majority of the French aspire to a public calling, and it appears that among the young men whom the State is educating at its own expense the proportion of future functionaries is greater than it is anywhere else. Out of a total of nine hundred and seventy-five scholarship holders that left the lycées during the years 1894, 1895, and 1896, only one hundred and seven had the wisdom to turn to commercial or industrial life."[2] In 1802 we find a new criterion entering into the basis of selection

[1] *Rapport de la Sous-Commission de discipline*, 1888, *Recueil de règlements relatifs à l'enseignement secondaire*, pp. 768–769.

[2] MASSÉ, *Bourses nationales*, p. 26, in *Enquête*, VI.

of these scholarship holders: the competitive examination. These two features together with a third emphasized by the Third Republic, the need of the family, determine the awards of these grants at the present time.

The remission of tuition fees in the secondary schools accorded the children of primary and secondary teachers is not looked upon as a scholarship, although the actual effects in the two cases are exactly the same. This remission is granted by right up to the amount carried on the budget for that purpose,[1] and is dependent upon no examination. Children of primary teachers receive free instruction as ordinary day pupils, and children of secondary teachers are granted the additional privileges of supervised day pupils, although the enjoyment of such grants in no case precludes the possibility of the same pupils gaining regular scholarships in addition, in the first instance as supervised day pupils, as half boarders, or as full boarders, and in the second instance as half boarders or as full boarders.

As has perhaps been inferred, the scholarships, whether provided by the State, the department, or the commune, fall into four general categories: (1) full board and tuition; (2) half board and tuition; (3) tuition with the supervised study room privileges; (4) simple tuition; although these are often awarded as wholes or as portions of scholarships as the exigencies of the individual case render advisable. These are granted in every instance after competitive examination, and only to those children where the financial condition of the family justifies the grant, cognizance being taken of the services the family has rendered to the nation. The departmental scholarship holders are appointed by the general council of the department; the communal scholarship holders by the municipal council, with the approval of the prefect; and the national scholarship holders by the Minister or the

[1] The chapter in the budget for 1908 which includes exceptions granted children of the functionaries of the primary and secondary systems, in the boys' and girls' lycées and colleges, and the girls' secondary courses amounts to 1,775,200 francs. *Budget général de l'exercice*, 1908, chap. 81.

President after the results have been tabulated by a central scholarship commission.

The scholarship examination committees for the boys' lycées and colleges consist of an academy inspector and four other members appointed by the rector from among the present or past professors of secondary or higher education. Modern language professors may be added temporarily wherever modern languages form a part of the examination. The examinations are held during the first fortnight in April in the *chef-lieu* of each department. The candidates fall into one of six series with maximum age limits from twelve to fourteen, and sixteen to eighteen inclusive, respectively, when the examinations are based upon the work of the sixth to the first form inclusive. The examinations are both written and oral, a mark of at least twenty out of a possible forty being requisite for admission to the latter. The written examination questions, formerly chosen by the departmental examining boards, are now sent out by the central commission, thus tending as far as possible to put all the candidates upon equal footing. In the main, especially in the second cycle, the written examination bears upon the subjects which characterize the work of the section in question, while the two parts together cover practically all the subjects of instruction in the form. Immediately at the close of the examination, the results are tabulated and sent off to the central commission at Paris. Every candidate who receives half the possible maximum is credited with a certificate of attainment, which, however, carries with it no further privilege than favorable consideration by the central commission. Rather more than one half of all the applicants are eliminated by these examinations, but still the task of the commission is by no means easy, for they ordinarily have yet to eliminate nearly two thirds of the remainder. Their decision is based upon two general sources of information: the pupil's intellectual potentialities as indicated by the examination he has just passed, as well as by his entire school career up to that time; and upon the income, taxes, and the resources of every

sort that bear upon the ability of the parents to support the boy at school. This latter question is studied most exhaustively, the regulations requiring that every statement contained therein be certified by the mayor of the commune where the family lives. On the basis of these two general reports, the commission makes its recommendations to the Minister.

Even when a scholarship is granted, it is awarded tentatively for a year unless the recipient has been at the school for at least a year. This trial scholarship may be renewed for another year, but at the expiration of that time it lapses automatically unless it is converted into a regular scholarship, technically known as a merit scholarship. This latter, if gained during the first cycle, is valid until the end of the third form, at which time it may be renewed, provided the holder has reached a certain standard of excellence in his work and conduct; if gained during the second cycle, it is continued until the beneficiary reaches nineteen years of age, although in exceptional cases the grant may be prolonged for a year, or even longer after this point. The judgment of the commission is almost invariably borne out by the subsequent school life of the pupil, for it is rare that a scholarship is forfeited,[1] and although constituting less than six per cent of the entire public secondary school population, these honor pupils invariably outnumber their non-scholarship classmates (sometimes by nearly two to one), in passing the competitive examinations for appointment to the various higher government schools.[2] The number of scholarship holders in the boys' secondary schools was 1,288 in 1905, and 1,158 in 1906. The budgets for 1907 and 1908 each carried 2,767,000 francs for the total amount of such scholarships in both boys' and girls' schools,[3] the boys' being about five and a half times as

[1] For the years 1894–96, less than four tenths of one per cent per annum. MASSÉ, *op. cit.*, p. 35.

[2] *Ibid.*, p. 75.

[3] *Budget de l'exercice* 1908, chap. 79. The annual appropriation of the city of Paris for this purpose is 180,000 francs. *Bull. adm.*, 1903, I., p. 181.

numerous as the girls'. One of the most striking features about the award of these benefices is the very large proportion of holders found in families whose salaries are paid entirely from state funds.[1] Although composing a relatively small proportion of the total population of the country, for the last two years at least they have been receiving about sixty per cent of all the scholarships in the secondary schools, and this entirely apart from the remission of fees previously indicated as granted to children of parents in the teaching service of the State.

There are, furthermore, graduate honor scholarships (fifty in the Paris lycées and a few more in the most important departmental lycées) awarded to distinguished pupils of the smaller schools, already in possession of the bachelor's degree, who wish to go to the larger lycées to prepare for the higher government schools. The selection of these honor pupils is made by the head masters, but their choice is restricted to the holders of state scholarships.

The school year in France is a long one, extending from the first of October until the first of August, broken by only one long vacation, nearly two weeks at Easter. This marks the end of the second trimester of the year, and after that the fellows that are facing the baccalaureate or a competitive examination at the end of the year settle down for the final struggle. For the other pupils, the last third is rather easier than the first two, and there is usually considerable opportunity for review and clearing up of the work of the year. There are of course no classes on Sunday, although the boarding pupils have a regular study period on Sunday morning. Opportunity is granted for church attendance if the parents or children so desire, but after they have passed their first communion the number that embrace this opportunity is practically a negligible quantity. Thursday is the regular secular holiday. In the morning, the pupils in the first cycle and

Holidays and Vacations.

[1] See Appendix I for occupations of parents of scholarship holders appointed in 1906–7.

below are free from all regular school work, save for the luckless youngster sentenced to pay the penalty for exercising too much initiative from the conduct point of view, or too little enterprise from the intellectual point of view. For the pupils in the second cycle often, and for the candidates preparing for the higher government schools always, Thursday morning is as full of class work as any other day. In fact some of these latter fellows are going at such a pace that it is a wonder they have any time to assimilate the work they are doing. Some of the prospective engineering students have thirty-four, thirty-five, and thirty-six hours of class work per week. The press of work with them certainly must be fearful.

On Thursday afternoon, all class work is suspended, and the boarding pupils have their regular supervised promenade. This is a most formal occasion when the boys in their blue uniforms march about in solemn procession indulging in nothing more frivolous than a subdued conversation. Sometimes they go for a walk in the country, sometimes they are conducted to a neighboring museum, but they never escape the watchful eye of the censor or his duly authorized representative. Some head masters are liberal enough to allow their pupils to play a game of football at this time, and a very, very few so far depart from hoary tradition as to allow their boys to go off by twos or threes and trust them to return at the appointed hour. But woe unto the master if by any chance an accident should happen to one of the pupils during this half holiday! Aside from the Easter vacation there is no class work on the regular legal holidays: All Saints' Day, Christmas, New Year's, Pentecost, Ascension Day, and July 14th, the national holiday. The rector may designate not more than eight special supplementary holidays in the course of the year. These are ordinarily used up in a few extra days at New Year's and at Easter. One misses the regular Christmas vacation, so dear to the American and English schoolboy, but in France the holiday season is connected with New Year's rather than Christmas. This

program gives a school year of about one hundred and ninety-five days, or slightly in excess of the figures for American cities of over eight thousand inhabitants.[1]

In France, during the past few years, there has been a movement on foot to increase the length of the long vacation. While nominally leaving the dates of the beginning and ending of the vacation unchanged the professors could be required to cover the subjects required by the program before July 14th, and the parents might then be authorized to withdraw their children at that date. A motion to this effect passed the lower house more than four years ago,[2] and it is likely to be put into effect before long.

A Day's Program.

Although the life is not so severe as it was in the Middle Ages when the classes gathered in the old rue du Fouarre as early as half past four in the morning, yet even to-day everybody in a French lycée gets an early start.[3] Rising comes in summer at five o'clock, or at the latest half past five, and in winter half an hour later. I have even found schools where the candidates for the higher schools as the time for the competitive examinations drew near were out of bed as much as an hour earlier and hard at work over their books. The worst feature about this early rising is the long work period on an empty stomach, but even the regulation time is long, and there is always a study period of at least a full hour before breakfast. The breakfast, which comes at seven or quarter past, is the typical French frugal first breakfast — a cup of coffee (sometimes chocolate) and bread, with butter occasionally. This latter is a luxury afforded only by some of the largest schools. After breakfast comes the first recreation period of the day which lasts until the beginning of the morning class at eight o'clock. The program for the little

[1] Average length of school term in American cities of over eight thousand inhabitants, 189.3 days. *Rep. Com. Ed.*, 1908, I., p. 417.

[2] *Annuaire de la jeunesse*, 1907, p. 217.

[3] See Appendix H for daily programs at Lycée Louis-le-Grand in 1769 and 1874.

fellows in the elementary classes usually runs about half an hour behind this of the older boys.

Between bedtime the night before and the beginning of the after breakfast recreation period, at which moment they are turned over to the general surveillants, the boys have been in charge of the dormitory surveillants. These latter, often little older than the upper form boys themselves, sleep in the dormitories, watch over the pupils during their morning ablutions, conduct them to the study room, supervise them during the first study period and during the breakfast. The dormitory surveillants, barring the fact that they ordinarily have to divide the supervision during the midday meal, are free from breakfast time until the evening meal.

Eight o'clock sees every boy in the school hard at work in his class room,—that is, if his teacher has arrived; otherwise the class stands waiting outside the door, for nobody would think of entering, even if the door were open, without direction from the teacher. The ordinary situation of the class rooms on the ground floor around a big open court makes this a simple matter; then the censor or the general surveillants can tell at a glance if any teacher has not appeared, and provision may thus be made for taking care of the class. In the larger schools, where the number of pupils justifies more than one section of a given class, the boarding pupils are kept by themselves, or at least are joined with the half boarders, while the externes are set off in another group. The dilatory fellow has an uncomfortable time of it. He must seek a written order from the censor before being allowed to join his class. The first offence is not very severely dealt with, especially if it is a question of two or three minutes, but old offenders are shown little consideration, and it usually means an hour or more of work at school on a half-holiday.

Nine o'clock marks the end of the first period, and the boys swarm out into the courts for a five-minute recreation. With the little fellows this is ordinarily stretched to ten minutes, and they chase each other about the playground as

a lot of American boys would do, but the youngsters that have reached the dignity of the sixth form take their pleasure in a much milder fashion. French classmates of twelve or thirteen and upward greet each other in the morning with as grave a handshake as though they were men grown. The older boys march sedately about the court by twos and threes or stand in small groups conversing quietly together.

At the end of this short intermission period they are back in their same class rooms again with the same teacher as before. Until the reform of 1902 the regular duration of a "class" was two hours, and the present program has simply cut five or ten minutes out of the middle for a breathing spell. The distribution of subjects makes such an arrangement very easy, for one teacher has all the Greek, Latin, and French in a given form, another the history and geography, another the mathematics, and another the physical sciences (which always include chemistry). Thus the first hour may be devoted to Latin and the second to French, the first to history and the second to geography. The two morning hours from eight to ten, and the two afternoon hours from two to four, or from half past two until half past four, are regularly occupied in this manner. At ten o'clock there is a fifteen-minute recreation period. The third morning hour, and in the large schools where the program is much congested, the first afternoon period from half past one to half past two are devoted to single-hour subjects like modern languages, arithmetic in the lower forms, natural science, and laboratory work.

At the close of the morning class work, the ordinary day pupils go to their homes, not to return again until their first afternoon lesson. All the others gather in their respective study rooms, where they work under the charge of the tutors (*répétiteurs*) until luncheon time. These study rooms are no whit different from ordinary class rooms save for the row of book lockers around the walls. In some of the city schools the advanced mathematics students are fortunate enough to

possess a good-sized table and an individual bit of blackboard for scratch work. In these upper study rooms the tutor is little more than a monitor, but with the smaller boys he is a real tutor, looking after them carefully to see that their tasks are completed, helping them when they are in difficulty, and even hearing their memory work. In some respects this relieves the regular teacher of much of the drudgery and allows him to spend more of his time in teaching, for he has to concern himself with the memory work of the ordinary day pupils only.

Luncheon or dinner time, as the case may be, which comes at noon or half past twelve, sees the supervised day pupils away, and only the boarders and the half boarders are left. This midday meal is the first hearty repast of the day, consisting usually of an *hors d'œuvre*, a meat course, a vegetable, cheese or dessert, with a bottle of wine[1] for every four boys, and as much bread as they want to eat.[2] The marble top tables (a tablecloth is an almost unheard-of luxury), together with the tiled floors, give the refectories a bare and cheerless look that is far from homelike. About the only redeeming feature in the general appearance of these dining rooms is the scrupulous cleanliness that universally prevails. A few years ago there were many complaints about the character of the board furnished at some of the lycées and colleges, but to-day I believe it is everywhere above reproach.

Between the end of luncheon and half past one is one of the chief recreation periods of the day. At this time, as well as during the other recreation hour after the afternoon classes, the parents of the boarding pupils may call and see their children in the school parlor. This is a real play period for everybody. The older boys are often playing tennis or handball (wall-ball, as the French call it), and the younger ones divert themselves with a kind of old-fashioned scrub football, tag, marbles, or the various purposeless romp-

[1] In the extreme North this wine is replaced by beer, and in the West by cider, according to the drink of the country.

[2] For a specimen menu see Appendix J.

ings that serve to amuse the children of every country and clime.

There are two hours of regular class work in the afternoon; then a hasty luncheon, ordinarily of bread and fruit, at four o'clock. At this time comes the principal recreation of the day. Extra lessons, such as those on the piano or other musical instruments, gymnastics, dancing, boxing, fencing, and riding, must all be taken during these recreation periods. After this the older boys have three hours of study, sometimes straightaway and sometimes broken by an hour for dinner. The evening meal comes at seven or eight, according to the circumstances just indicated, and by nine o'clock, or half past at the latest, everybody is in bed.

It has been a hard day, and at least from the American point of view an inordinately long one, but it is somewhat easier than it used to be. In 1890, the Minister of Public Instruction cut down the working school day by fixing the maximum number of hours of sedentary labor at six for the primary and elementary divisions, at eight for the grammar division, and at ten or ten and a half for the upper classes of the secondary course. At the same time he regretted his inability to fix any similar limits for the pupils preparing for the higher government schools. "The average day of the schoolboy then," he went on to say, "will vary between fourteen and sixteen hours, the rest of the time being devoted to physical exercises, to recreations, to meals, etc."[1]

This is the regular program for every day except Thursday and Sunday. On the morning of the former the smaller boys have a fairly free half holiday, that is, barring the fact that they have some lesson to make up or some punishment to work off, while for the three upper forms and for all the candidates for the higher government schools the program goes on just as before. In the afternoon, all the boarding pupils go out for a long walk under the direction of the censor or his assistants. Sunday afternoon is spent in a

[1] *Circ.*, July 7, 1890, *Rec. des règ.*, p. 716.

similar fashion unless the boy is fortunate enough to escape entirely from the restrictions of the school life and spend the day with his family or his friends.

Nature of the School Life.

When the boy first enters the lycée, he is assigned a number which conceals his identity in practically all his relations with the school outside the class room until his connection therewith is terminated. His caps, his clothes, his bed, his wash basin, his napkin ring, in fact everything he has or uses is marked with this number. He has absolutely no privacy any more than if he were a common soldier living in barracks. There is no place he can call his own, and he can never be by himself. He is in the dormitory, the refectory, the study room, the class room, or on the playground, and in any case he is surrounded by fifteen or twenty others. This whole system forces the boy to live a collective rather than an individual life, which savors strongly of the orphan asylum if not of the penitentiary, or, to use a more euphemistic word which the French critics prefer, of the barracks.[1] The time is practically all planned out for him from ten o'clock on Sunday night until eight o'clock on the following Sunday morning. He rises by the clock, he washes by the clock, he eats by the clock, he studies by the clock, he plays by the clock, he goes to bed by the clock. It would be interesting to know what would happen if he could not sleep by the clock. His incomings and his outgoings take place only at stated times and at fixed intervals, always near the watchful eye of some mentor. As long as he is within the school, he is practically cut off from all contact with the outside world. There are no newspapers for him to read; his mail is all minutely scrutinized to make sure that it bears the signature of parent or recognized correspondent; and it is a serious breach of the regulations if one of his fellow pupils is detected in performing any commission for him on the outside. In fact he has little or no money to spend even if he could

[1] See also DEMOLINS, *À quoi tient la supériorité des Anglo-Saxons*, p. 7.

persuade one of his classmates to violate the rules for him, for his parents make a deposit with the bursar and give that official directions as to the amount of his advances to the boys. The authorities request that this allowance shall not exceed two francs per week, and the gate-keeper's supply of sweets provides ample opportunity for the expenditure of this meagre pocket money. He has no time that he can call his own, and consequently he is not encouraged or even allowed to plan out his work for himself. So far as my observations and inquiries go there is an entire absence of all that training to fit a young man to meet situations, to handle his fellows, that the athletic activities and the freer atmosphere of our own institutions do so much to encourage. The very great majority of secondary school men believe that they cannot safely grant their boys any more liberties, and the small minority of head masters that hold other views and would like to give their boys more freedom are restrained by peculiar conditions. In other words, in case of accident while the boy is under the jurisdiction of the school authorities, whether on the playground or on an excursion, the State is liable for damages. If no school officer happened to be present, the head master himself may be sued for negligence in this respect. During the past twenty years the increasing activity of numerous unscrupulous lawyers in pushing such cases upon contingent fees has gone far to make the masters perhaps over cautious, and has seriously retarded the growth of any tendency toward reducing the strictness of the surveillance that might otherwise have been in evidence. The superior authority has thus far declined to relieve the masters of this responsibility; hence the few instances where the pupils have any real freedom are all the more noticeable by their rarity. The life of the French secondary school is thus a most restricted and unreal sort of an existence where the absence of spontaneity and individuality commands a high premium. It is not surprising then to an Anglo-Saxon that when the French boy quits the lycée

precincts and realizes that he is no longer bound by the restrictions of his school life, he has less self-control, less poise, less executive skill, and in general is less able to solve the problems he is called upon to face than are the English or American boys of the same age.

CHAPTER IX

FRENCH AND THE CLASSICS

AT first sight it seems a bit strange to link the dead classics and the living French together, but it becomes perfectly clear when we recall that the instruction in the mother tongue is invariably intrusted to the teacher of the classics, that is, of course, from the sixth form upward. Although this is unquestionably a relic of the old régime, and the vernacular has long had a place for itself among the recognized subjects of secondary study, occasionally one finds an echo of the past like the following: "I believe that the special study of the French language and literature ought not to figure in the program *during the first two periods of secondary instruction*. . . . The mother tongue is the vehicle of all other subjects of instruction; it is necessarily learned simultaneously with them."[1] It is likewise worth noting that on the program in force at the time of the adoption of the present program in 1902, French was not assigned a special number of hours per week, but French and the classics received thirteen hours among them in each of the first three years of the secondary course proper and twelve in the next three.

In the days of the early colleges, Latin was everything. Little else was taught and the few other subjects were all acquired through the Roman tongue. Scholars wrote it, scholars spoke it; it was the medium of diplomacy as well as of theological dispute; it was the universal language of the literary world. What

Evolution of Latin.

[1] MANEUVRIER, *L'Éducation de la bourgeoisie sous la république*, 3me éd., 1888, p. 115.

more natural than that it should monopolize the instruction in the schools that trained men for these professions![1] Nearly four hundred years after the founding of the university, only a bold spirit dared attempt to teach in anything but this time-honored language. Under the *Ratio studiorum* of the Jesuits, no one of the classes had more than a half hour in the morning and an equal length of time in the afternoon for all the instruction in the mother tongue. The vernacular occupied relatively about the same proportion of the program of the Port-Royalists, and hardly more in the university schools of the seventeenth and eighteenth centuries, so far as we can judge from Rollin. In the meantime the Greek had made but little headway. Resuscitated by the Renaissance, it was still regarded as a mark of culture rather than an indispensable tool. The Revolution swept away the university as well as the colleges that had survived the expulsion of the Jesuits, and practically all the classical learning disappeared at the same time. The little that was left in the so-called Central Schools is hardly to be taken seriously. In re-establishing the secondary schools, Napoleon founded them on a basis of Latin and mathematics: "Latin because it was customary; mathematics because he had been an artillery officer."[2] With the passing of Napoleon the Latin quite dispossessed its only serious rival and reassumed much of its former glory, so that one might truly have said according to popular ideas, "without Latin, there is no secondary instruction." This "popular notion" as expressing the inertia of tradition is undoubtedly largely responsible for the influence that Latin exerts even to-day. The modifications that have taken place from time to time show the efforts of the classicists to harmonize the force of this tradition with the needs of our modern society.

[1] The cash account of one M. Filley de la Barre, 1706–1728, throws some light on the preponderance of Latin instruction at the Collège Louis-le-Grand in the early part of the eighteenth century, at that time the most prominent of the Jesuit colleges, as well as upon the manners and customs of some of the younger students. See Appendix F.

[2] FRARY, *La question du latin*, p. 45.

We are becoming more and more convinced that questions of education and so of program depend upon something more substantial than sentiment and tradition. They are vitally and indissolubly embodied in the progress of society, in its material *and* intellectual *and* spiritual advancement. The old Latin was really the most intrinsically useful of subjects, for it was the passport for the church and the other professions, for a diplomatic career, or for polite society. With the evolution of our intellectual and industrial life it has lost nearly if not all of that characteristic.[1] Intellectually its absolute value has remained constant, for time has brought no tarnish to the nobility of its thought or the beauty of its expression, but its recent loss of prestige is practically due to the recognition that its relative position has been considerably changed. The very close fundamental relation between the French language and the Latin has been a potent factor in preventing the more rapid spread of this modifying tendency, and if it ever comes to a crisis will probably be powerful enough to save the latter. On this account the position of Latin must always be relatively stronger in France than in any of the Teutonic or the Anglo-Saxon countries.

The day of Greek as an essential instrument of general culture has plainly passed in France, for whereas the former inequality of privilege, as far as further university professional study was concerned, that existed between the old baccalaureates, practically made Greek compulsory, the new program has changed all that. Indeed, Greek enthusiasts are relieved that they did not fare worse. As one of the leaders said: "The new programs have restricted the part given to Greek in secondary work, but they finally recognized its right to live, and we can hope its existence will not be discussed, at least for

The Passing of Greek.

[1] Yet the question of Latin as the future international language was on the program for serious discussion at the *Primo Congresso internazionale latino* at Rome in the spring of 1903.

Cf. also ANDRÉ, *Dans quelle mesure se sert-on encore du latin?* In *Revue internationale de l'enseignement*, 1902, II., pp., 503–512.

some time."[1] Former classical scholars generally, unless their judgment is warped by prejudice or by their own close connection with its instruction at the present time, are free to admit that Greek is practically dead. Many are frank enough to recognize that the day is not far distant when the Greek will have disappeared entirely from the colleges and will be found only in the larger lycées. Indeed, I came across a reasonably important provincial lycée where only eight of the three hundred and twenty boys in the school were studying Greek, and the two boys in the beginning class this year had both begun the language in a private school and were continuing it here in order not to lose the time they had already spent upon it. Instances like the lycée at Dijon, where Greek still enjoys much of its former prestige, thanks in large measure to the personal influence and the good teaching of the professor in the beginning class, serve only to throw the ordinary situation into stronger relief. On the other hand, some teachers are rejoiced to find a decided improvement in the quality of their Greek pupils. This change for the better is not at all surprising, for now that Greek is an optional study it has been able to throw off that dead weight of pupils who took it with absolutely no interest in the subject matter, but merely because they could not get a regular baccalaureate without it. In other words the avenue toward the most desirable government preferment led through the Greek gateway.

Efforts to save the Classics.

A study of the new program suggests that the classicists may have sacrificed their deck load of Greek in order to save their cargo of Latin, although it might not be easy to find one who would admit this.[2] In the former program it was the classical course with both Latin and Greek *versus* the "modern" course without either of the ancient languages. The new program during the first cycle ostensibly offers the same

[1] CROISET, M. in *Revue internationale de l'enseignement*, 1903, II., p. 19.

[2] *Cf.* also LANSON, *L'université et la société moderne*, p. 43.

choice, but when we come to the fourth and third forms there are practically three options: (1) the old classical course; (2) the old modern course, both with certain modifications; and (3) the classical course without Greek. Here the three hours of Greek are replaced by two additional hours of the modern language already begun, and one hour of drawing. The last named course by implication would appear to be the normal division A course, for according to the official program, "the pupils who take Greek will be relieved from three hours of class work, two taken from the time assigned to modern languages and one from drawing." While the old program offered a perfectly free choice between the classical and the modern courses, the lack of official sanction offered the latter, by which the holders of its baccalaureate were eliminated from the bar and many other walks of professional life, forced practically all except the prospective engineers to select the traditional course with both Greek and Latin. The reform program has abolished this former inequality, as far as official regulations can do so, by placing both baccalaureates upon the same footing with reference to undertaking future professional careers, or rather by establishing only one baccalaureate with mention of philosophy or mathematics, together with whichever of the four sections they came under at the first part of their examination. But whereas under the old dispensation there was but a single course that led to the baccalaureate, under the present conditions there are four, with Latin as one of the important subjects in three out of the four courses. It is interesting to learn, moreover, that when Greek has to stand on its own merits, so to speak, it no longer maintains its hold on the intellectual leaders of the class, for although the present form of examination in the old classical course is admittedly the easiest of the four in the first part of the baccalaureate, more than once I have found the strongest pupils in the class to be in the Latin-science section.

Instruction in Latin which from time almost immemorial had been a part of the course in the elementary section of

the lycées and colleges was eliminated from the work of the lower classes by the program that went into effect in 1880, and since that time has been begun in the sixth form. Five years later the single hour assigned to Latin and Greek was cut out of the philosophy form, and since that date it has consequently been found in the first six years of the secondary course, properly speaking, or according to the present class nomenclature, from the sixth to the first form inclusive. As has previously been indicated, the program of 1902 cut down the number of week hours for Latin in every form except the second. Beginning Greek, which was formerly found in the sixth form, was changed to the fourth form by the program of 1880, only to be pushed back three quarters of a year into the fifth form five years later, and again subsequently restored to the fourth form. The present situation, therefore, in the classical course of the secondary school gives a boy six years of Latin and four of Greek with an optional year of each in the philosophy form.

Latin and Greek in the Program.

The following are the Latin, Greek, and French courses for the lycées and colleges in accordance with the present regulations :

SIXTH FORM

LATIN, 7 hours. Reading and translation of, and memory work from, Latin authors. (The reading and translation will form the principal part of the year's work.) Latin grammar. Latin composition, written and oral. Written translations (from the Latin).

PROGRAMS OF INSTRUCTION. Regular declensions and conjugations. (Both these are begun simultaneously so as to introduce the pupils as soon as possible to the elements of the complete sentence.)

Short sight exercises of translation from French to Latin and from Latin to French. (The teacher will read slowly a sentence in French or in Latin wherein all the words are known, and have the pupils translate it orally or in writing.)

AUTHORS. Selection of easy graded texts. *Epitome Historiae graecae* (simple, graded edition). *Viri Romae* (2d semester).

FRENCH, 3 hours. Division A. Reading and interpretation of, and memory work from, French authors. Grammar, syntax, language work, and spelling. Simple oral and written composition. (Rules are to be taught chiefly by use. The teacher will let no opportunity slip to re-

mind the pupils that they should learn the rules instinctively. Hence he will constantly base his instruction on the examples drawn from the written or spoken language of the pupils. The object of grammatical study is to formulate in precise statements the rules drawn from experience.)

AUTHORS.[1] Selections from the prose and verse of the French classics. Selected stories of the prose writers and the poets of the Middle Ages put in modern French. La Fontaine, *Fables* (first six books). Fénelon, *Télémaque*. Buffon, selected descriptions. Selections from nineteenth century poets.

FRENCH, 5 hours. Division B. [Program similar to that above. This being the non-classical division more emphasis is put upon the grammar. Also considerably more memory work.][2]

AUTHORS.[1] Reading, explanation, and memory work. [The same list of authors as above, with the addition of stories from the prose writers of the nineteenth century.]

FIFTH FORM

LATIN, 7 hours. Reading and translation of, and memory work from, Latin authors. (The reading and translation will form the principal part of the year's work.) Latin grammar, Latin composition, written and oral. Written translations (from the Latin).

PROGRAM OF INSTRUCTION. Review of the grammar. Regular and irregular declensions and conjugations. First principles of syntax, agreement; principal uses of the cases; complements; principal and subordinate clauses.

Arrangement of words by families. Root words, derivatives, and words in composition.

Sight translation from French to Latin.

Reading and translation of authors, at sight or prepared.

Comparison of the Latin and the French construction based upon examples taken from the texts read.

Reproduction from memory of selections read and translated in the class.

AUTHORS. *Viri Romae* (1st semester). Historical selections from secular history. Nepos (2d semester). Phaedrus, selected fables (2d semester). Justin, extracts.

FIFTH FORM

FRENCH, 3 hours. Division A. [Program similar to that of the sixth form above.]

AUTHORS.[1] Selections from the prose and verse of the French classics. Selected stories from the prose writers and the poets of the Middle Ages,

[1] The teacher will choose from this list the matter to be explained in class.

[2] The [ ] indicate the author's summary of the official text.

put in modern French. Selected scenes from Corneille and Molière. Racine, *Esther*. La Fontaine, *Fables* (first six books). Fénelon, *Télémaque*. Buffon, selected descriptions. Stories from the prose writers of the seventeenth and eighteenth centuries (Lesage, Voltaire, etc.). Selections from the nineteenth century poets.

FRENCH, 5 hours. Division B. [Program similar to that of Division A above, with added mention of outside reading upon which pupils are to be examined in class.]

AUTHORS.[1] Reading, explanation, and memory work. Selections from the prose and verse of the French classics. *Chanson de Roland*, put in modern French. La Fontaine, *Fables* (last six books). Boileau, Selections from the *Satires*, and *Le Lutrin*. Racine, *Esther*. Fénelon, *Télémaque*. Selections from the poets of the nineteenth century. Stories from the prose writers of the nineteenth century.

FOURTH FORM

LATIN, 6 hours. Reading and translation of, and memory work from, Latin authors. (The reading and translation will form the principal part of the year's work.) Latin grammar, Latin composition, written and oral. Written translations (from the Latin).

PROGRAM OF INSTRUCTION. Review of the grammar. More detailed study of syntax.

Reading and translation of authors. Comparison of the Latin and the French construction based upon examples taken from the texts read. Oral exercises on vocabulary.

Prosody and versification; hexameter and pentameter, scansion, and recasting in metrical form.[2]

AUTHORS. Nepos (1st semester). Caesar, *Gallic War*. Cicero, *De Senectute*. Curtius. Virgil, *Æneid* (Books I, II, III). Ovid, *Metamorphoses* (selections). Ethical selections from Latin authors.

FOURTH FORM

GREEK, 3 hours (optional). Greek grammar. Written and oral exercises.

PROGRAM OF INSTRUCTION. Declensions (articles, nouns, adjectives, pronouns) and conjugations (verbs in ω, contract verbs, verbs in μι, common irregular verbs). Invariable words. Elements of syntax.

AUTHORS. Chrestomathy. Æsop, *Fables*. Lucian, extracts from *Dialogues of the Dead, Dialogues of the Gods, True History*.

[1] The teacher will choose from this list the matter to be explained in class.

[2] The teacher will select a number of verses in one of these familiar meters and transpose the words into the prose order. The pupils are then required to turn this back so as to give a correct metrical version.

FOURTH FORM

FRENCH, 3 hours. Division A. Reading and interpretation of, and memory work from, French authors. (Outside reading upon which the pupils are examined in class.) Review of French grammar. Elementary principles of versification in connection with the texts read. Exercises in versification. Language work and spelling. Simple compositions. (From time to time the teacher will touch upon the questions of historical grammar that seem to be required by the texts read. This is in no sense to be a course in that subject, and the questions are to be treated only when they will make the present day language more intelligible.)

AUTHORS.[1] Selections from the prose and verse of the French classics. Selected scenes from Corneille and Molière. Racine, *Athalie*. La Fontaine, *Fables* (last six books). Boileau, *Le Lutrin*. Fénelon, selected dialogues and fables. Voltaire, *Charles XII.*, *Siècle de Louis XIV*. Portraits and stories from the memoirs of the seventeenth and eighteenth centuries. Chateaubriand, stories, scenes, and sketches. Michelet, historical extracts. Selections from nineteenth century poets.

FRENCH, 5 hours. Division B. [Program similar to that of Division A above, except the attention devoted to versification.]

AUTHORS.[1] Reading, explanation, and memory work. Selections from the prose and verse of the French classics. Corneille, *Le Cid*. Molière, *L'Avare*. Racine, *Athalie*, *Les Plaideurs*. Voltaire, *Charles XII*. Michelet, historical extracts. Stories from the prose writers of the eighteenth century. Selections from the poets of the nineteenth century.

THIRD FORM

LATIN, 6 hours. Reading and translation of, and memory work from, Latin authors. (The reading and translation will form the principal part of the year's work. Furthermore the pupils will be required to do outside reading upon which they will be examined in class.) Review of the grammar. Written translations (from the Latin). Latin composition. Prosody and versification; hexameter and pentameter, scansion, and recasting in metrical form.[2] (Beginning with this class, a summary of the history of Latin literature will be put into the hands of the pupils.)

AUTHORS. Narration (selection of stories taken chiefly from Livy). Cicero, *Against Catiline*, *Archias*. Sallust. Latin Theatre, extracts. Virgil, *Georgics*, *Æneid* (Books IV–VIII). Latin anthology (except the works on the regular program). Ethical selections from Latin authors.

[1] The teacher will choose from this list the matter to be explained in class.
[2] See note under Fourth Form Latin, p. 194.

THIRD FORM

GREEK, 3 hours (optional). Reading and translation of, and memory work from, Greek authors. Grammar reviewed and continued. Written translations (from the Greek). Greek composition.

AUTHORS. Lucian, extracts from *Lucian's Dream, Timon, Menippus, Charon.* Xenophon, extracts from *Cyropaedia, Anabasis.* Herodotus, extracts. Ethical selections from Greek authors.

THIRD FORM

FRENCH, 3 hours. Division A. Reading and interpretation of, and memory work from, French authors. [Outside reading and historical grammar as in the fourth form above.] Compositions. (Beginning with this class a sketch of the history of French literature will be put into the hands of the pupils.)

AUTHORS.[1] Selections from the prose writers and the poets of the sixteenth, seventeenth, eighteenth, and nineteenth centuries. Portraits and stories from the sixteenth century prose writers. Selected plays from Corneille, Molière, and Racine. Boileau, *Satires* and *Epîtres.* Selected letters from the seventeenth and the eighteenth century writers. Poetical masterpieces of Lamartine and Victor Hugo. Chateaubriand, stories, scenes, and sketches. Michelet, historical extracts.

FRENCH, 4 hours. Division B. Reading, explanation, and memory work. (The outside reading for this section is chiefly taken from the French translations of the classical and modern masterpieces.) Reading and quizzes intended to acquaint the pupils with the great epochs in French literature. (Beginning with this class a sketch of the history of French literature will be put into the hands of the pupils.) Compositions.

AUTHORS.[1] Reading, explanation, and memory work. Selections from the prose and verse of the French classics. Corneille, *Horace, Cinna.* Racine, *Britannicus, Iphigénie.* Molière, *Le Bourgeois Gentilhomme, Les Femmes Savantes.* Bossuet, *Oraisons funèbres.* Chateaubriand, stories, scenes, and sketches. Victor Hugo, selected poems. Stories from the seventeenth and eighteenth century writers. Selected scenes from the comedies of the seventeenth and the eighteenth century.

SECOND FORM

LATIN, 4 hours. (Program common to Sections A, B, and C.) Reading and translation of, and memory work from, Latin authors. (The reading and translation will form the principal part of the year's work. Furthermore, the pupils will be required to do outside reading upon which they will be examined in class.) Latin composition, and

[1] The teacher will choose from this list the matter to be explained in class.

elementary exercises in original Latin writing. Reading, and quizzes intended to acquaint the pupils with the chief Latin writers. (Beginning with this class a more complete grammar will be put into the hands of the pupils.)

AUTHORS. Cicero, *De Suppliciis, De Signis, Scipio's Dream.* Livy, a book of the third decade. Tacitus, *Agricola, Germanicus.* Pliny the Younger, *Selected Letters.* Latin Theatre, extracts. Virgil, *Æneid* (Books IX–XII), *Bucolics.* Horace, *Odes.* Latin anthology (except works on the regular program). Ethical selections from Latin authors.

SECOND FORM

GREEK, 5 hours. Reading and translation of, and memory work from, Greek authors. Review of the grammar. Written translation (from the Greek). Greek composition. Reading and quizzes intended to acquaint the pupils with the chief Greek writers. (Beginning with this class, a summary of the history of Greek literature and a more complete grammar will be put into the hands of the pupils.)

AUTHORS. Homer, *Iliad, Odyssey.* Xenophon, *Œconomics.* Plato, *Apology, Crito, Io.* Plutarch, extracts from the *Lives* (Alexander and Caesar, Demosthenes and Cicero, Alcibiades and Coriolanus, Pericles and Fabius Maximus). Euripides, a tragedy (chosen from the two *Iphigenia, Alcestes, Hecuba, Hippolytus, Medea*). Ethical selections from Greek authors.

SECOND FORM

FRENCH, 3 hours. (Program common to sections A, B, and C.) Reading and explanation of, and memory work from, French authors. (Outside reading upon which the pupils will be examined in class.) Compositions. Reading and quizzes intended to acquaint the pupils with the principal writers up to the end of the sixteenth century. (Beginning with this class a more technical grammar will be put into the hands of the pupils.)

AUTHORS.[1] Selections from the prose writers and the poets of the sixteenth, seventeenth, eighteenth, and nineteenth centuries. *Chanson de Roland.* Extracts from Villehardouin, Joinville, Froissart, and Comines. Chrestomathy of the Middle Ages. Montaigne, principal chapters, and extracts. Political masterpieces of Marot, Mansard, du Bellay, d'Aubigné, Regnier. Selected plays from Corneille, Molière, and Racine. La Fontaine, *Fables.* Boileau, *Satires* and *Epîtres.* Bossuet, *Oraisons funèbres.* La Bruyère, *Caractères.* Selected letters of the seventeenth and the eighteenth century. Readings on the society of the seventeenth century from memoirs and correspondence. Selections from Rousseau. Political masterpieces of Lamartine and Victor Hugo. Selections from the principal historians of the nineteenth century.

[1] The teacher will choose from this list the matter to be explained in class.

FRENCH, 3 hours. Section D. [Aside from the fact that the sketch of French literature covers the writers of the sixteenth, seventeenth, and eighteenth centuries, and that the list of authors is considerably more limited, the work is very similar to that done in the other three sections.]

FIRST FORM

LATIN, 3 hours. (Program common to sections A, B, and C.) Reading and translation of, and memory work from, Latin authors. (The reading and translation will form the principal part of the year's work. Furthermore, the pupils will be required to do outside reading upon which they will be examined in class.) Written translations (from the Latin). Latin composition and exercises in original Latin writing. Reading and quizzes intended to acquaint the pupils with the chief Latin writers.

AUTHORS. Cicero, selected letters, *Pro Milone*, *Pro Murena*. Extracts from and analysis of the principal speeches. Extracts from his ethical and philosophical writings. Extracts from his treatise on rhetoric. Great addresses (chosen chiefly from Livy, Sallust, and Tacitus). Livy, a book of the third decade. Seneca, extracts from the *Letters to Lucilius*, and his ethical writings. Tacitus, *Annals*, *History*, *Dialogues on Orators*. Latin Theatre, extracts. Lucretius, extracts. Virgil. Horace, *Satires* and *Epistles*. Latin anthology (except works on the regular program). Ethical selections from Latin authors.

Extra work. Latin, 2 hours (required in Section A, optional in Section B).

FIRST FORM

GREEK, 5 hours. Reading and translation of, and memory work from, Greek authors. Written translation (from Greek). Greek composition.

AUTHORS. Xenophon, *Memorabilia*. Plato, extracts. Demosthenes, *Philippics*, *On the Crown*. Attic orators, extracts from: Lysias, Isocrates, Æschines, Hyperides. Homer, *Iliad*, *Odyssey*. Extracts from Æschylus and Aristophanes. A tragedy each from Sophocles and Euripides. Greek anthology (except works on the regular program). Ethical selections from Greek authors.

FIRST FORM

FRENCH, 3 hours. (Program common to Sections A, B, and C.) [Similar to that for the second form, save that the principal writers covered extend from the seventeenth century to the end of the first half of the nineteenth.]

AUTHORS.[1] Selections from the prose writers and the poets of the sixteenth, seventeenth, eighteenth, and nineteenth centuries. Montaigne, principal chapters and extracts. Selected plays from Corneille, Molière, and Racine. La Fontaine, *Fables*. Boileau, *Epîtres*, *Satires*, *Art poétique*, extracts from prose works. Pascal, *Pensées*, *Provinciales* (I, IV, XIII, and extracts). Bossuet, *Oraisons funèbres*, *Sermons choisis*, extracts from his various writings. La Bruyère, *Caractères*. Fénelon, *Lettre à l'Académie*, extracts from his other works. Selected letters from the seventeenth and the eighteenth century. Montesquieu, *Considérations sur les causes de la grandeur des Romains et de leur décadence*. Extracts from *L'Esprit des lois*, and his other works. Buffon, extracts. Voltaire, extracts from his historical writings and from his other prose works. Diderot, extracts. Rousseau, selections, *Lettre à d'Alembert sur les spectacles*. Readings on the society of the eighteenth century from memoirs and correspondence. Political masterpieces of Lamartine and Victor Hugo. Selections from the ethical writers of the seventeenth, eighteenth, and nineteenth centuries. Selections from the principal historians of the nineteenth century.

FRENCH, 3 hours. Section D. [Aside from the fact that the sketch of French literature is confined to the nineteenth century writers and that the list of authors is considerably more limited (orators and political writers since the Revolution, and the principal scientists have been added), the work is very similar to that done in the other three sections.]

PHILOSOPHY FORM

LATIN and GREEK, 4 hours (optional) Section A. LATIN, 2 hours (optional) Section B. The authors of the first form program. Cicero, extracts from his rhetorical treatises. Lucan, extracts. Thucydides, extracts. Aristotle, extracts from the *Rhetoric* and the *Poetics*. Theocritus, selected *Idyls*.

In the graduate forms there is no outlined program nor even a suggested list of authors. The professor chooses from the preceding course the authors that seem likely best to prepare his particular class for the competitive examination that lies before them.

In examining this classical program, perhaps the first thing that strikes our attention is the very large amount of time it requires, amounting to between thirty-five and thirty-nine hours of Latin and eighteen hours of Greek, and this, too, representing what is looked upon to-day as an almost "irreducible minimum."

Time Allowance for Classics.

[1] The teacher will choose from this list the matter to be explained in class.

There is very general complaint among the teachers that the time for Latin is far too short. Even assuming that the French secondary school course covers at least the freshman year work in our best colleges, the number of hours still appears inordinately large. Taking the recommendations of the Report of the Committee of Ten as the basis of comparison, and assuming that the Latin of the first year of college amounts to three periods per week, we still find that the Latin program of the French schools occupies nearly twice as many periods as the American program which we have assumed to be reasonably comparable. On considering further that in America the time unit is ordinarily not over three quarters of an hour, while in France it is nominally sixty minutes (though in practice this is usually cut down about five minutes), the relative difference is still further increased. On the same basis, the Greek in the French schools with its sixteen or eighteen periods during the course likewise receives far more attention than we grant it. Looked at from another point of view, namely, the amount of time spent upon the classics as compared to the total length of the secondary course, there is considerably more similarity, for in the two countries the classics occupy about one third of all the time, the proportion being somewhat greater with us than it is abroad.

Diversity of Program.

The amount of time devoted to classical study in the French schools makes it possible to read the large number of authors, especially in Latin, that we find on their programs. There are many works and even some authors that are nothing more than names to most of our students who do not carry on their classical studies beyond the first year in college. With the one-course Latin diet that prevails in most of our American high school classes, it is not surprising that few of our students gain any adequate ideas of the development of the Latin literature. I had not even a word of explanation to offer when one teacher smilingly referred to Cæsar as our Latin "daily bread." Every classical class in the French schools

in general is studying at least two authors simultaneously, and after the second year both prose and poetry are represented. For example, the fourth form class (the third year of Latin) starts the year with Nepos, follows it with three books of the *Æneid* and some books of Cæsar running conjointly, and completes the year with *De Senectute* and selections from the *Metamorphoses*, contriving to work in a little Curtius and some extracts from purely ethical and moral subjects. The following third form scheme of work will give a clearer idea of the weekly distribution of time:

TUESDAY, 3.30–4.30 P. M. Memory work; dictation of the text for the Latin to French translation; reading and translation.
WEDNESDAY, 9.00–10.00 A. M. Memory work; correction of the Latin to French translation.
3.30–4.30 P. M. Grammatical review and prosody.
FRIDAY, 2.30–3.30 P. M. Memory work; dictation of the text for the French to Latin translation; reading and translation.
SATURDAY, 8.00–9.00 A. M. Memory work; reading and translation.
3.30–4.30 P. M. Correction of the French to Latin translation.

While this is a purely individual arrangement, for the official program merely states the amount of ground to be covered and does not attempt to specify how the time shall be apportioned, it may be taken as a fairly typical distribution. At the beginning of the year, each professor submits some such weekly schedule to the head master of the school in order that the work of the pupils may be scattered over the whole week, and that they shall not be unduly crowded on any one day.

The methods in use in classical teaching, and in fact in all linguistic instruction, are strikingly different from our own. In the first place, one is impressed with the emphasis placed upon memory work. The weekly program quoted above makes some provision for this every day, and if the number of lines that I heard recited in that particular class is to be taken as a standard (and I believe it may), those boys were learning about a hundred lines of Latin per week. The teacher of the same

Method: Memory Work.

form in one of the provincial colleges in discussing this question of memory work said: "Yes, I believe in it thoroughly. I have these boys thirteen or fourteen hours per week (including French and ethics) and they have one hundred and fifty lines to learn. If I had them more hours, they would have still more to commit to memory. The boys never object." It was after the close of the lesson, so the mild expressions of disagreement with the last remark on the part of several boys gathered around, while not subversive of school discipline, showed a decided difference of opinion. The facility acquired by long practice, together with the fact that the lines to be memorized are invariably carefully translated and explained in the class beforehand, makes it possible for the boys easily to learn the ten or twenty lines assigned for each lesson in about as many minutes. Inasmuch as the French is always closely connected with the Latin in all this memory work, the practice cannot fail to give the pupils a great advantage in translating either from Latin to French or from French to Latin. It is an open question, however, if this emphasis upon committing to memory has not been carried too far. There are certain evidences, especially in the lower classes, that it has even trespassed on the domain of subjects like history and mathematics, where it should play a decidedly subordinate rôle.

Pronunciation.

For one who has been accustomed to the modern pronunciation of Latin as found in the United States to-day, it is at first almost impossible to follow the class work in France. The old Erasmian method of pronunciation served as the point of departure, but except for the Roman sound of *e* and the enunciation of the final consonants, the Latin is pronounced exactly as though it were French. The efforts to bring about a reform here have thus far failed to meet with any general sympathy, chiefly because the intimate relation between the Latin and the French is one of the strong reasons for studying the ancient language, and with the reform pronunciation, not only would the pupils have to master a foreign pronunciation, but the aural assist-

ance in discovering the relationship between the two languages would be entirely eliminated.

Latin prose is not looked upon as a kind of addendum or appendix that is merely attached to the outside of the regular course, but it forms an integral part of the work. In fact, in the minds of the French teachers, these two are never dissociated. The teacher dictates the text to the class. The work is prepared outside, handed in, carefully read by the teacher and the errors noted, discussed at length in the class, and finally written correctly by each pupil in his note book. Throughout this whole process there is an amount of care and painstaking that would astonish some of our American boys. There is unquestionably a great waste of time in dictating these texts, for one must reckon on ten to twenty minutes for each, and even with the reading and rereading mistakes are bound to crop out. It was consequently a great delight to find one or two teachers wide-awake enough to use some kind of a duplicating machine to prepare their texts for class use. Even the professor himself is compelled to keep a blank book for all the exercises of this kind he gives out, a regulation that certainly facilitates the work of the inspector when he makes his rounds. In the lower grades, the texts, like so many of our own, are mere translations from the Latin, but in the upper classes they are often chosen from the French classic writers.

Latin Composition.

Just as in the German *Gymnasium*, considerable importance is attached to written translations from Latin to the vernacular. They certainly call forth an accuracy and a nicety of rendition that is practically impossible in oral work. The general method followed is similar to that just indicated for the Latin prose work. The same care is taken in correcting and rewriting, so that it may truly be said that this translation from the Latin is after all an exercise in French composition. In fact this correlation between Latin and French is everywhere strongly evident, largely, probably, because the teacher

Written Translations.

of Latin is always the teacher of French, and what he neglects in one class he will only have to correct in the next. This practice of teaching the mother tongue through the classics goes far toward helping the classical pupils make up the seven hours excess of French which the pupils of Division B have gained during the first cycle.

Translation.

Reading and translation, or as the French call it, *explication des textes*, is treated entirely differently from what it is in America. In the first place, the class work is free from that "choppy" sort of recitation that is so common with us, for the French teacher makes no effort to get around the class in any single period. He calls on very few boys, often not more than half a dozen out of a class of twenty or thirty, but he manages to find out pretty accurately what each one really knows about the lesson in hand. I have never yet heard an absolute failure in a French class, nor have I ever heard a boy say, "I am not prepared." Probably both these situations occur, but they are at least reasonably rare. As the program already given will show, the first part of the period where translation occurs is taken up with memory work and dictation for outside written work, so that about two thirds of the time remain for the translation proper. A pupil is called upon to "explain the text." This falls into four stages: first, reading in Latin a whole sentence or perhaps the entire assignment that he will be called upon to render; second, he rereads the Latin by natural groupings of the words (that is, subject and predicate if it is a simple sentence, the subject and its modifiers, a clause at a time, etc.), but *in the order required by the French idiom;* third, each of these groups of words is immediately turned literally into French; and finally, the whole assignment is translated into good French. The second and third of these steps make up what the French call the "word for word" translation, really a sort of hybrid, for it is neither Latin nor French. This is a thoroughly artificial process and plainly a device of the translator which only emphasizes the bad habits that nine tenths of the people fall into who at-

tempt to translate from one language to another, and tends to nullify all effort to induce the pupils to think in the foreign idiom. It would seem to be a confession of weakness thus to juggle with the order of the Latin phrases in order to make them intelligible in the mother tongue. To be sure, it eliminates numerous syntactical questions and explanations, for the teacher can discern immediately whether or not the pupil has grasped the meaning of the text; and the rest of the class at the same time have most of their difficulties cleared up, but it must necessarily waste considerable time, for the method recognizes no differentiation of difficulty, and the same laborious and artificial treatment is expended upon the simple as upon the obscure. The movement for the suppression of this "word for word" translation is even now gathering headway,[1] but much time and effort will be necessary to change such a deep-seated method of procedure. This is accompanied on the part of the teacher by a running comment and criticism, embracing questions of history, geography, etymology, and style, which all serve to explain, illumine, and appreciate the text. The teacher sometimes monopolizes so much of the time in this commentary that it seems as though he were lecturing to the class rather than that the class were reciting to him. It is essentially a method of pouring in rather than of drawing out; but it apparently characterizes the philosophy of education of the very great majority of the French teaching body. This whole method would fall far short of the mark were it not for the simplicity of all these explanations and the inseparable note book in the hands of the class. These comments are carefully jotted down by each individual pupil to be digested and absorbed before the next lesson. The general result is that time for time in his classical studies, the French boy covers just about as much ground as his American cousin, but on the whole he does his work more thoroughly and knows it better.

[1] *Cf.* recent articles in the *Revue universitaire* by LAVAND, *Une petite réforme pédagogique; Comment rendre nos élèves plus fort en grec et en latin*, 1904; CHABERT, *Simples notes sur la traduction orale des textes latins*, 1907.

Inasmuch as the Greek and the Latin are both handled by the same teachers, the general method followed in teaching these two languages is essentially the same. I was generally impressed, however, by the carelessness of both teachers and pupils with regard to accent in pronunciation. One professor frankly said that as soon as he found his pupils could get along without the accents he no longer insisted on their marking them in their written work, but it was quite impossible to discover what his standard of pronunciation was. In this same second form class, the text for the Greek composition was given out in Latin and the translation was to be made directly from one language to the other without utilizing the French as an intermediary, that is, without first translating the whole extract into the vernacular.

Greek.

The close relation between the teaching of the classics and the French has naturally influenced the instruction in the mother tongue to a marked degree, in fact, one may fairly say that for many a generation the vernacular suffered under this baleful influence, for the dry method of teaching the dead classics was rigorously applied to the living French. As long as the intellectual life was practically bounded by the field already worked over by the sages of Greece and Rome, the vocabularies of these older languages were perfectly adequate for the uses of mediæval scholars. For fourteen centuries the great desire had been to attain the summits once reached during the golden age of classic civilization. The Renaissance meant not only a more and more successful attempt to regain this lost ground, but it marked also the stimulus to independent thought outside the traditional limits and the beginning of the modern scientific movement. Erasmus and a few other devoted classicists struggled manfully to make the Latin respond to the changing needs of the intellectual life, but all in vain, for the inflexibility of the ancient tongue was its undoing. In this dilemma, the vernacular, not one but half a dozen or

Growth of French.

more, rushed forward to fill the breach. Thus while the Latin still served the purposes of the philosophers and remained a kind of international language in that field, the scientists were forced back upon their own resources, and they contributed materially to the development of the modern tongues.[1] However much our sympathies may have been aroused by Ramus's struggles to popularize French as a subject of instruction, we must admit that he failed in his purpose. The Oratorians, the bitter rivals of the Jesuits, and the illustrious though ill-fated schools of the Port-Royalists, however, instituted a very important reform when they not only based the classical instruction upon the mother tongue and also began the latter subject first, but they even commenced to study the native language for its own sake.[2] The progress was slow, for it was not until toward the end of that century, the seventeenth, that Hersan and his more famous pupil Rollin introduced the study in one of the university colleges. The latter speaks with enthusiasm of the success he obtained in having his rhetoric pupils summarize their Latin lessons partly in Latin and partly in French, and of the stimulation in interest resulting from the introduction of this simple variation of method.[3] Later this practice of Rollin's spread until we find the exception of the seventeenth century becoming the rule of the eighteenth, for Rollin's *Traité des études* largely represents the programs of the university colleges until well on toward the Revolution. However much the French increased in importance, it was entirely dominated by the Latin. Even the short-lived Central Schools of the Directory as they were actually organized gave comparatively little attention to French, and it was all confined to the last two years of the course. The first lycée program published by Napoleon in 1802 carried a somewhat simi-

[1] *Cf.* HARTOG, *Teaching of the mother tongue in France*, in *Ed. Rev.*, April, 1908, XXXV, p. 335.

[2] LANTOINE, *Histoire de l'enseignement secondaire en France au* XVII[e] *siècle*, p. 170.

[3] Quoted by LANTOINE, *op. cit.*, p. 212.

lar allotment of time for the native language and literature. The revision of 1809 after the founding of the University, however, bears evidence of a return to many of the conditions of the old régime. Then for the first time we find a program that in outward appearance was very similar to the one in existence until the recent reform. At that time French and Latin appeared side by side throughout the course, not that the two were by any means on equal footing, but they were at least contemporary. This juxtaposition remains much the same to-day, though on the classical side the native tongue has gained absolutely as well as relatively upon the Latin, and on the "modern" side, which the new program has established on a par with the classical instruction, the French stands alone. In the second cycle, French receives the same time allotment on the two "sides," but in the first cycle it has nineteen hours in Division B as against only twelve in Division A, an advantage which, as has already been pointed out, is largely made up by the fine correlation between classical and French instruction.

In the elementary classes of the secondary school, instruction in the mother tongue is confined to reading, language work, analysis, memoriter recitation, and simple written exercises, anything approaching literary study even of a most elementary type being chiefly conspicuous by its absence. The emphasis upon the study of formal grammar and the aridity of this literary aspect of the program in comparison with that of the primary schools is explicable on two grounds: first, the tenacity of the influence of the traditional method of classical instruction; and, second, the fact that in the lycées and colleges these years are looked upon merely as preparatory to the real secondary course which is to follow.

The written exercises in these elementary classes are similarly barren, for there is a great deal of dictation work, a little letter writing, and only a very small opportunity for any self-expression on the part of the pupils. In fact, even

in the upper classes, great as has been the progress in the last thirty-five years, there is still a good deal of truth in M. Bréal's criticism that the pupil acquires "the habit of expressing the sentiments of convention; the literary exercises of the class are for him only what the theatre is for the actor."[1] In a first form class, the following was given out as the subject for one of the written compositions: "A pupil of Rollin has failed in some important piece of work he has undertaken. Write a letter of sympathy from the master to this pupil." I had the good fortune to be present in a third form class during the "correction of the task," as the French put it. One of the three periods per week is ordinarily spent in this way. The subject assigned had been this:

Composition.

"Toward midnight on the eve of the battle of Raveaux (1746), M. Sénac, the physician of Marshal Saxe, who found himself alone in the tent with his commander, noticed that the latter was sad and pensive. On being asked the reason, the Marshal replied in these lines from *Andromaque*, III., 8:

> 'Songe, songe Séphis, à cette nuit cruelle
> Qui fut pour tout un peuple une nuit éternelle;
> Songe au cris des vainqueurs, songe aux cris des mourants
> Dans la flamme étouffée, sous le fer expirant.'

In writing what is suggested to you by this incident, make use of the following suggestions: (1) Historical introduction on Maurice of Saxony; sketch his military career. (2) Description of the sleeping camp; look up the picture of Dutaille; the tent of the Marshal, the only one lighted; entrance of Sénac. (3) Dialogue between the two men on the lines from Racine, Sénac supporting the necessity for the war, Maurice presenting the humanitarian point of view. (4) The two men go out of the tent to look at the sleeping camp. Use here the scene represented in the sky of the picture, and imagine the words of the Marshal and his physician as they separate."

[1] BRÉAL, *Quelques mots sur l'instruction publique en France*, p. 241.

After reading two of the better papers and one of the poorer ones, the teacher made some very keen and incisive general criticisms on the papers as a whole, using the compositions read to illustrate his points. He was particularly severe on the boys that used the cut and dried arguments of their ethics text-book in elaborating the dialogue suggested above.

Both these examples are rather characteristic of the ethical tendency that permeates the ordinary instruction, and the second shows strongly the influence upon the logical development of ideas. Furthermore, the second brings out very clearly one of the strongest features of French teaching: the effort made to prevent pupils from making mistakes. It is perfectly true that this may be carried to a point which is destructive of initiative and independence, but if our American teachers would give more attention to this phase of their work, they would not have to expend so much energy in rectifying errors already made.

Literature.

As we come to the upper classes, the elementary language work and the technical grammar are gradually sloughed off, and save for the ever present memorizing, composition has to divide the attention only with literature. On the whole the latter is unusually well done, even though at times it is too intent upon fastening the established criticism upon the pupil's mind rather than of evoking from him an independent expression of his own personal and honest appreciation. From the third form upward there is an ever increasing amount of attention devoted to the history of literature, though not without protest on the part of some of the university professors who rather inconsiderately maintain that this study should almost exclusively be reserved for superior education;[1] thereby losing sight of

[1] LANSON, *L'université et la société moderne*, p. 111. M. Lanson is not quite so emphatic in his statements on this point a year and a half later. See his *Études modernes dans l'enseignement secondaire*, in *L'Éducation de la democratie*, p. 178, a lecture delivered at the *École des hautes études sociales*, in the spring of 1903.

the fact that a comparatively small proportion of the secondary school graduates ever enter the arts faculties of the universities. On the whole, then, reading and interpretation claim the major portion of the time. Except for a slight emphasis upon nineteenth century poets in the Latin section, and the additional inclusion of selections from the prose writers of the same century in the "modern" section, the literature course in the main follows a chronological order from the classic writers down. After the sixth form, as the program implies, each teacher has a rather wide range of books from which to choose his texts. This allows considerable leeway for the exercise of his own personal preferences and enables the teacher to select the things he likes best and will consequently teach most enthusiastically. Very little reading is actually done in the class, and one hears mere summarizing comparatively seldom. There is an evident attempt to take up the play, the poem, or the selection as a whole, rather than to follow the fragmentary method of treatment that has little place in real literary appreciation, and usually succeeds in stifling any love for literature that might otherwise be aroused. As far as the French classics are concerned, the national theatres in Paris do much to supplement the school. Regularly at the *Comédie Française* and frequently at the *Odéon*, one finds classic plays upon the boards, and at the latter theatre the prices are unusually low upon such occasions, for in France it has not yet become the fashion to neglect the classics. The teachers are free to recommend these plays to their pupils, and at the Thursday matinée one may count on finding a goodly proportion of boys and girls in the audience. Of course not all the books in the program can be read every year, but when a boy has completed the first form (there is no French in the final year) one may unhesitatingly affirm that he has made the acquaintance of all the classic and the principal modern writers of both prose and poetry (save those authors whose writings are addressed to a more mature public), that he has read their best known works and has committed to memory

several thousand lines of their choicest expressions, that he has some intelligent notions of the style and characteristics of many of them, and that in the main he has acquired an appreciation of and a love for good literature. Surely this is an achievement of which anybody might be proud. To be sure it requires time (in the Latin sections three hours per week for six years), a consistently and progressively arranged program, and intelligent and skilful teachers, but with the possible exception of the memory work is it more than ought to be required of our own high school graduates?

CHAPTER X

MODERN LANGUAGES

WITHIN the purview of the French public school system, the expression "modern languages," or as their term is, "living languages," means English, German, Italian, Spanish, Arabic, and Russian. The latter is not yet taught in any of the schools; the Arabic and its related language, the Khabyl, concern only the schools in Africa; the Italian and the Spanish are practically limited to the lycées and colleges near the borders of these respective countries; so that the observations which follow are based largely upon the languages of the nations immediately east and immediately west, though, unless there are specific exceptions to the contrary, they must be understood as applying equally well to the two Romance languages.

Signification of "Modern Languages."

Modern language instruction in France is practically a creation of the nineteenth century, for although one finds spasmodic references to it, at least ever since the days of the Oratorians and the Port-Royalists, these are interesting rather as showing the difficulty it found in making a place for itself in the program than as chronicling any appreciable results definitely accomplished. It is probable that Richelieu, when he prescribed "the comparison of the Greek, Latin, French, Italian, and Spanish languages" among the subjects of instruction of the college he was responsible for establishing in 1640,[1] was merely continuing what P. de Coudren had already begun in the colleges of the Orato-

Growth of Modern Language Instruction.

[1] CAILLET, *De l'administration en France sous Richelieu*, II., p. 175, quoted in HAMEL, *Histoire de l'abbaye et du collège de Juilly*, p. 233.

rians. But however accurately this suggestion may have been carried out, it can hardly be dignified by the name modern language instruction. Very shortly after that time, the Port-Royalists were evidently doing something more worthy of the name. Lancelot published his Italian Method [1] and his Spanish Method in 1660, and Racine is said to have known both these languages when he was just fresh from the school.[2] Both these quickly appeared in second editions, the former in 1664 and the latter in 1665. In the Spanish book, at least, he was apparently influenced by purely utilitarian purposes, for the object as set forth in his preface is "that it may be of service for the promotion of intercourse and commerce between the two foremost nations of Europe," and on account of the widespread use of the Spanish language, it will serve as a medium of communication in "the East and the West Indies, in Europe, in Africa, in Asia, and in America."

The study of Spanish and Italian also appears in d'Agues-seau's *Instructions à mes enfants*, dating from 1716, but not published until 1756, written with the idea of laying out a course of preparation for the magistracy, but whether the presence of the study of these two languages is due to any connection with previous efforts or merely to a personal conviction drawn from his own general learning and broad scholarship it is difficult to say. Be that as it may, his attention was directed toward higher rather than secondary education, a point of view that may be reflected by La Chalotais when he says: "The modern languages are treated almost like one's contemporaries, with a kind of indifference and almost always slightingly. Circumstances and taste ought to fix the time for them. Ordinarily they are left for the years that follow education" [3] (that is, after

[1] *Nouvelle méthode pour apprendre facilement et en peu de temps la langue Italienne.*

[2] COMPAYRÉ, *Histoire critique des doctrines de l'éducation en France depuis le seizième siècle*, II., p. 260.

[3] LA CHALOTAIS, *Essai d'éducation nationale*, 1763, p. 70.

the age of seventeen or eighteen which he fixed as the normal limit). English and German were the two modern languages specifically named by La Chalotais, the former for use in scientific investigation, the latter for purposes of military study. Nevertheless, he gave them merely a passing mention, apparently not thinking it worth while to discuss them at length. This same La Chalotais is interesting for evidently having had in mind a suggestion of the direct method of to-day, when he pointed out very clearly that in learning a living language, one made a direct association between the object itself and its name, whereas in learning a dead language the association was between the name in the foreign language and the name in the vernacular. As he put it, in one case it is the symbol of an object, in the other it is the symbol of a symbol.[1]

The movement for the introduction of modern language study into the curriculum grew but slowly, for it was not recognized as of sufficient general utility to warrrant assigning it a place on the college programs. Guyton de Morveau, writing in 1764, frankly declared that no country in Europe was interesting itself in the languages of its neighbors less than France,[2] a neglect undoubtedly largely due to the position in the world of letters and diplomacy that the French language had by that time come to occupy. In following the "preceptor of our rival nation" (Locke), he recommends Italian, English, and German as useful for business, commerce, and travelling, as well as for fine arts, literature, and scholarship. Although adducing such broad advantages for foreign language study, he proposed a very limited scope, for he advocated introducing it only in the schools of the provincial capitals, and of reserving it almost invariably until after the year of physics, which was the crowning study in his educational scheme.

[1] LA CHALOTAIS, *Essai d'education nationale*, 1763, p. 76.

[2] GUYTON DE MORVEAU, *Mémoire sur l'education publique, avec le prospectus d'un collège suivant les principes de cet ouvrage*, p. 119.

Although demanded by some of the *Cahiers de 1789*,[1] inserted in the proposed schemes of Talleyrand, 1791, the City of Paris, 1793, Romme, 1793, Lakanal, 1795, suggested furtively by Daunou, 1795, for the Central Schools, temporarily occupying a place in the program of the *Prytanée*, 1801, and in 1814 put on the same footing as the other "accomplishments," dancing, music, and fencing, to be paid for by the parents outside the regular school fees, modern language instruction finally found a regular place, but even then only as an optional subject, for the first time in the program of 1821.[2] M. Vatimesnil's report to the king in March, 1829[3] wherein he referred to the establishment of special sections in some of the royal colleges, for instruction in science, modern languages, the theory of commerce, and drawing, in an effort to make instruction respond "to the needs of the commercial, agricultural, industrial, and manufacturing professions," a demand which the classical learning had utterly failed to supply, evidently bore some fruit, for modern language instruction was made compulsory in the fall of 1829, only to be relegated to the optional group in the following spring. It was still being taught on Thursdays or during the interval between the regular morning and afternoon classes. In the classical course since 1838, and in the "modern" course from the very beginning in 1847, it has been compulsory for everybody at some time, but the number of years of prescribed work has been very variable. The maximum was reached in 1880, when modern language study appeared in every year from the preparatory form through the philosophy and amounted to twenty-nine week hours for the whole course out of a grand total of two hundred and forty-five hours for the ten years. At the same time French had fifty-one hours; Latin and Greek, sixty; science, forty-

[1] CHAMPION, *L'instruction publique en France d'après les cahiers de* 1789, in *Revue internationale de l'enseignement*, 1884, II., p. 13.

[2] For these various programs see GRÉARD, *Enseignement secondaire*, II., *Annexes*, pp. 238–250.

[3] Quoted by GRÉARD, *op. cit.*, p. 253.

one; history and geography, thirty-six; drawing, ten; and philosophy, eight.[1]

Since that time there have been attempts made to abolish the modern languages from all classes below the sixth, but these have thus far proved abortive, partly on account of the opposition from the teachers in those classes who saw themselves in danger of losing the extra remuneration granted to holders of the additional modern language certificate, but chiefly from the parents who still clung to this instruction in the second year of the preparatory division and in the eighth and seventh forms as constituting the only outwardly distinguishing characteristic between the program of the elementary classes of the lycées and colleges and the work given in the free public primary schools. The administration thus found itself confronting an annoying dilemma. The parents demanded these languages in the lower classes; the authorities were trying to co-ordinate the secondary school course proper with the primary school program so as to make an easy and natural transition from the latter to the former. Since the lower primary school program makes no provision for modern languages, to comply with this popular demand meant to defeat the very purpose of the administration along the line just indicated. The languages are still taught for three years preceding the sixth form, but only two hours per week, and a relatively small number of boys are entering the sixth form direct from the lower primary schools. The result of putting these latter into the class with boys that have been studying a language for three years can readily be imagined. The confused grading reacts both ways: in the upper form in retarding the class and in immeasurably increasing the burden of the teacher; in the lower forms in emasculating the work of most of its virility and seriousness. Such a condition of mal-grading would not be tolerated for a moment in the ancient languages or in mathematics, but just

Instruction in the Lower Classes.

[1] *Arrêté*, Aug. 2, 1880, GRÉARD, *op. cit.*, *Annexes*, pp. 280–281.

at present there seems to be no immediate prospect of ridding the modern languages of this incubus. The unsatisfactory condition of modern language instruction in the lower classes is thus not entirely the fault of the teachers, although it must be admitted that one ordinarily finds here the most poorly equipped teachers, especially where the instruction is entrusted, as is usually the case, to the regular class teachers that have done the extra work necessary to gain the certificate required for this purpose. To make matters worse, the official regulations contain no specific instructions as to the modern language program in these grades, merely disposing of it with "two hours per week." The recitations that I visited in these elementary classes were distressingly dull, but what more could one expect when the recitations come only twice a week, and the teacher is limited to the most commonplace expressions within the vocabulary furnished by the class room and its immediate environment?

In the upper forms the official instructions are most specific, the years devoted to modern language study being divided into three periods: the first covering the sixth and fifth forms, characterized by the acquisition of a simple vocabulary, the training of the ear and the vocal chords, and in accustoming the pupil to speak in the foreign tongue; the second period including the fourth and third forms, occupied in developing the conversational power, in enlarging the vocabulary, in widening the basis of his grammatical knowledge, and in putting him in position to understand books and other publications printed in the foreign language as well as to express his own thought in the written language; the third period covering the entire second cycle, wherein the language is sufficiently well known so that reading no longer being the chief aim, the pupil may begin to learn about the country itself, and the life and the literature of its people.[1]

[1] Instructions annexed to the circular of Nov. 15, 1901, in *Plan d'études et programmes d'enseignement dans les lycées et collèges de garçons*, 1907–1908, pp. 32–33.

PROGRAMS OF THE FIRST PERIOD. SIXTH AND FIFTH FORMS

5 HOURS A WEEK

(Common to Divisions A and B)

PRONUNCIATION. — All the efforts of the teacher should be directed toward obtaining from the very first a good pronunciation and a correct accent. In order to obtain this he should pronounce the words slowly, separating the syllables, and should have them repeated after him, sometimes by one pupil, sometimes by several, and sometimes by all in concert. Not until then should he write the word on the board.

VOCABULARY. — The words should be taught from the objects themselves, with as little recourse as possible to the mother tongue.

The pupil acquires progressively the vocabulary related to the following subjects:

SIXTH FORM

THE CHILD AT SCHOOL. Objects that he uses in class. Relations with the people around him. Principal actions in school (I write, I read, etc.). Movements about the class. Parts of the class room. Use of school furniture. Recreation. Games.

NUMBERS (cardinal and ordinal). Simple reckoning. Weights and measures.

TIME AND TEMPERATURE. Divisions of time. Heat and cold. Seasons (very general notions).

THE HUMAN BODY AND ITS PHYSICAL NEEDS. Food. Clothing. The senses. Health and sickness.

THE HOME AND THE FAMILY. Parts of the house; different rooms; furniture and utensils. The members of the family; their occupations; family gatherings.

FIFTH FORM

THE COUNTRY. Appearance of the country; atmospheric phenomena; seasons; plants and animals. Occupations of the country: the farmer; the vine dresser; the gardener; the wood cutter. The country house: principal parts. The domestic animals; use and services rendered. Farming implements. Pleasures of the country: hunting and fishing; walking and other modes of locomotion; festivities and diversions.

THE CITY. Streets (vehicles), railway station, post office, hotel, theatres, museums, libraries, large and small shops, markets. The principal occupations.

NATURE. The ocean, rivers, mountains, plains, forests, sky.

VERY GENERAL NOTIONS OF THE GEOGRAPHY OF THE COUNTRY WHOSE LANGUAGE THEY ARE STUDYING.

The teacher should not attempt to exhaust the vocabularies of the foregoing subjects, but should limit them to the words in ordinary use. He is especially cautioned not to use technical terms and to avoid naming in the foreign language objects or parts of objects unless the pupils already know the French name.

GRAMMAR. Thorough grammatical drill during the first period. The essential point is that the ear should be accustomed to the form *before* the rule is given, and that the rule, always clear and concise, should be a simple statement of a general fact.

CONVERSATION. Throughout the first period, conversation is at once the end and the means. The immediate aim is to fix the words in the pupil's memory, and to accustom his ear to require the correct form. The pupil should always respond in a complete sentence. The teacher should as soon as possible use the foreign language for whatever he has to say.

. . . . . .

WRITTEN WORK. At first, this is of only secondary importance. From time to time dictation exercises may be profitably used, but one ought always to be sure that the text is already understood.

TEXT BOOK. . . . Explain new words by the aid of words already familiar. In any event avoid the word-for-word translation. The teacher will determine for himself when he will put a book into the hands of his pupils, but at all events not until they have acquired a good pronunciation.

SECOND PERIOD. FOURTH AND THIRD FORMS

5 HOURS

(Common to Divisions A and B)

1. A book of selections containing pictures of the life abroad, practical notions, in a pleasant and brief way, about commerce, the means of communication, the diversions and the institutions of the people; in other words, presenting the vocabulary of daily life in a series of connected passages.

2. Selected short stories and dialogues, as far as possible giving the pupils pictures of contemporary manners and customs as well as models of style for their own stories. This selection may include stories, legends, and poetry.

ENGLISH. Selections from such modern authors as: Marryat, Stevenson, Miss Edgeworth, Miss Mitford, Miss Montgomery, Mrs. Burnett, Ouida, Kingsley, Hawthorne, Hardy, Thomas Hughes, Anstey, Rider Haggard, Mary Wilkins, Wells, Jerome K. Jerome, etc. Short poems and stories in verse from Cowper, Southey, Scott, Wordsworth, Coleridge, Campbell, Kingsley, Longfellow, Morris, Mrs. Browning, etc.

GERMAN. Selections from such modern authors as: W. Alexis, M. von Ebner-Eschenbach, Fontane, Freytag, Ganghofer, Gottschall, Hackländer, P. Heyse, Hans Hoffmann, Hans Hopfen, Max Kretzer, D. von Liliencron, Raabe, Riehl, Rodenberg, Rosegger, Max Schmidt, Spielhagen, Stifter, Stinde, Storm, Sudermann, Wildenbruch, Wilbrandt, etc.

ITALIAN. A collection of the nature of Lapi's edition of *Prose e Poesie italiane scelte e annotate da Luigi Morandi.* L. Capuana, *C'era una volta.* Short stories of C. Collodi, Emma Perodi, Ida Baccini.

SPANISH. Extracts from modern authors, such as the narratives, short stories, and anecdotes of Trueba, Fernán Caballero, Pereda, Fernandez Bremón, Carlos Rubio, Eduardo Bustillo, Narciso Campillo, Ruiz Aguilera, Castro y Serrano, Valera, Pardo Bazán, Eusebio Blasco, Fernanflor, Palacio Valdés, Salvador Rueda, Blasco Ibáñez, etc.

If the teacher prefers to use a more connected text, he may choose one of the works named below:

ENGLISH. Hawthorne, *Tanglewood Tales, Wonder Book.* Kingsley, *The Heroes, Water Babies.* Halliwell, *Popular Rhymes and Nursery Tales.* Swift, *Gulliver's Travels.* Kipling, *First Jungle Book* (extracts). Lady Barker, *Station Life in New Zealand.* Miss Montgomery, *Misunderstood.* Goldsmith, *Vicar of Wakefield.* Johnson, *Rasselas.* Sir John Lubbock, *Pleasures of Life.*

GERMAN. Grimm, *Märchen.* Bechstein, *Deutsche Märchen.* Hauff, *Märchen.* Goethe, *Der neue Paris* (W. u. D. II), *das Puppenspiel* (W. Meister I, 2–7), *die gefährliche Wette* (Wanderjahre, III., 8). Rosegger, *Waldjugend, Als ich noch der Waldbauernbub war.* Stifter, *Granit, Der Waldsteig.* Storm, *Pole Poppenspäler, Geschichten aus der Tonne.* M. von Ebner-Eschenbach, *Krambambuli, Schloss- und Dorfgeschichten.* Wildenbruch, *Neid, Kindertränen.* G. Keller, *Kleider Machen Leute.*

ITALIAN. Silvio Pellico, *Le mie Prigioni.* Giovanni Dupré, *Pensieri sull' arte e ricordi autobiografici.* Emilio de Marchi, *L'Età preziosa.* Giovanni Verga, *Storia di una capinera.* Edmondo De Amicis, *Cuore, Alle porte d'Italia, La vita militare.* Antonio Fogazzaro, *Daniele Cortis.* Ida Baccini, *La storia di Firenze narrata a scuola.*

SPANISH. Extracts from *Don Quijote.* Selected fables (*Samaniego, Iriarte, Jérica, Hartzenbusch,* etc.). Fernán Caballero, *Cuentos, oraciones, adivinas y refranes populares é infantiles.* A. de Trueba, *Cuentos populares, Cuentos campesiños, El libro de los Cantares, Narraciones populares,* Frontaura, *Las tiendas.*

RUSSIAN. Tolstoi, Tourguenev, Gogol. Lermontov, *Bella.* Pouchkine, *Boris Boulba.*

A newspaper may replace one of the above named books, but only on condition that all the pupils subscribe for it.

THIRD PERIOD. SECOND AND FIRST FORMS

2 Hours[1]

(Common to Sections A, B, C, and D)

1. Reading based upon history, geography, science, arts, and industry.

2. Selections from the masterpieces of the literature, or from one of the following works:

SECOND FORM

English. Sheridan, *The School for Scandal.* Goldsmith, *She Stoops to Conquer.* Irving, *Rip Van Winkle, Spectre Bridegroom, Legend of Sleepy Hollow.* Stevenson, *Treasure Island.* Longfellow, *Tales of a Wayside Inn* (extracts). W. Morris, *The Earthly Paradise* (extracts). Macaulay, *Essays* (extracts). Dickens, *Christmas Carol.*

German. Selections from lyric poetry: Bürger, Goethe, Schiller, Tieck, A. W. and F. Schlegel, Chamisso, Uhland, A. Grün, Lenau, Rückert, Platen, Heine, etc. Extracts from Goethe's prose works: *Werther, Wilhelm Meister, Briefe aus der Schweiz, Italienische Reise.*

Italian. Selections from Ariosto, Métastase, Goldoni, Monti, Gozzi, *L'Osservatore.* Alfieri, *Vita.* Manzoni, *I promessi sposi.*

Spanish. Selections from classic lyric poetry. Anthology of modern and contemporary poets. Extracts from the *Romancero.* Short stories of Pedro de Alarcón, Valera, Trueba, Pardo Bazán, etc. Selected scenes from the contemporary *Saynetes* (Javier de Burgos, Vital Aza, Ramos Carrión, Ricardo de la Vega, etc.). Cervantes, *Don Quijote.* Moratin, *El si de las Niñas.* Quintana, *Vidas de españoles célebres.* Mesonero Romanos, *Escenas Matritenses.*

FIRST FORM

English. Shakespeare, *Julius Cæsar, Macbeth.* Extracts from Milton, Addison, Goldsmith (prose and poetry), Wordsworth. Byron, *Prisoner of Chillon.* Coleridge, *The Ancient Mariner.* Dickens, *David Copperfield* (abridged edition). Macaulay, extracts from the *History of England.* Eliot, *Scenes of Clerical Life, Silas Marner.* Tennyson, *Enoch Arden, The Brook, Ulysses, The Lotus Eaters.* Thackeray, *English Humorists.*

German. Dramatic Poetry: Schiller, *Wilhelm Tell, Maria Stuart, Jungfrau von Orleans, Wallenstein.* Goethe, *Iphigenie, Tasso, Egmont,*

[1] Besides this, Sections B and D have one hour per week additional on the language already begun, and four hours for the second language. In the latter case, the texts are chosen from the list indicated for ordinary use in the fourth and third forms.

Faust, I., *Goetz von Berlichingen*. Kleist, *Prinz von Homburg*. Grillparzer, *Historische Dramen*. Extracts from the prose of Wieland, Goethe (*Dichtung und Wahrheit, Kampagne in Frankreich, Die französische Literatur*), Schiller, Novalis, Immermann, Auerbach, Freytag, Scheffel, G. Keller, K. F. Meyer, Heyse, etc.

ITALIAN. Selections from Boccaccio, Petrarch, Vasari, Alfieri, Castiglione, *Il Cortigiano*. Cellini, *Vita*. Parini, *Il Giorno*, *Le Odi*. Tasso, selections from *La Gerusalemme liberata*. Extracts from contemporary novelists (especially A. Fogazzaro, Renato Fucini, L. Capuana, G. Verga, M. Serao).

SPANISH. Cervantès, *Don Quijote*. Selections from *Novelas ejemplares*. Extracts from the historians: Mendoza, Mariana, Solís, Melo, Quintana, Toreno, etc. Selections from the classic and the modern plays, such as: Castro, *Mocedades del Cid*. Alarcón, *Verdad sospechosa*. Calderón, *La vida es sueño*. Moreto, *El desdén con el desdén*. Moratin, *El café*. Selected scenes from Bretón de los Herreros, Rubí, Eguilaz, Tamayo, Ayala, Echegaray, etc. Larra, *Articulos de costumbres*.

PHILOSOPHY AND MATHEMATICS FORMS [1]

(Philosophy A, 2 hours, optional; Mathematics A, 2 hours; Philosophy B and Mathematics B, 1 hour, and 2 hours additional, distributed according to the choice of the pupils.)

1. Extracts from the principal historians, critics, and philosophers.
2. Selected readings from nineteenth century literature:

ENGLISH. Emerson, *English Traits*. Spencer, Selected essays. Stuart Mill, *Autobiography*. Arnold, *Culture and Anarchy*. Ruskin, *On the Nature of Gothic* (*Stones of Venice*, II.). Carlyle, *Essay on Goethe*, and *Essay on Burns*. Seeley, *The Expansion of England*. Keats, extracts. Byron, *Childe Harold*, canto III. Extracts from Tennyson, Robert Browning, Mrs. Browning, and from the poems of Kipling.

ITALIAN. Selections from Dante, Foscolo, Giusti, Leopardi, Machiavelli, a collection of the nature of Finzi's *Crestomazia machiavellica*. Galilée, *Prose scelte*. A. Fogazzaro, critical and philosophical writings (*L'Origine dell' Uomo*, *Per la Bellezza d'un 'idea*, *Il dolore nell' arte*, etc.).

SPANISH. Extracts from the moralists (Guevara, Quevedo, Gracián, Granada, León); and from the critics (Quintana, Martinez de la Rosa, Lista, Valera, Menéndez Pelayo, etc.). Contemporary lyric poetry (Espronceda, Zorilla, Bécquer, Compoamor, Núñez de Arce, etc.). Selections from the "Picaresques," and the contemporary novelists.

Such is the list of authors from which the modern language texts are to be chosen for the last five years of the regular course. Aside from the query that is likely to come into one's mind on the advisability of including such authors

[1] See also page 236.

as Marryat, Miss Edgeworth, Miss Mitford, Miss Montgomery, Ouida, Anstey, Rider Haggard, and Wells, that are found in the second period, in any such representative list of English authors for school purposes,[1] and the probable desire of most Americans to see more of our own authors represented, one finds a broad and on the whole a good selection from which to choose. One might reasonably expect, however, to find more than five American authors in a list of fifty-two English-speaking writers, especially when the above-mentioned names are included. It would seem as though the present position of the United States in the commercial, industrial, and agricultural world would merit the wider acquaintance with the manners, customs, and ideals of the people that could only be obtained from their own literature. There may be some excuse for the common failure, even among reasonably intelligent people in France, to distinguish geographically between an inhabitant of Rio Janeiro and one of New York, when one finds an English reading book issued from the press of an English publishing house that enjoys an international reputation, and now in regular use in at least one modern language class in France, the following sentence on the United States: "Bisons are being gradually driven westward, and are now never found east of the Mississippi." On the other hand, it is a pleasure to read accurate though meagre information about the United States in some of the newer text-books[2] for use in the English classes.

Neglect of American Authors.

[1] The writer refrains from criticising the list of authors in the other modern languages, but he feels reasonably sure that a similar criticism might be passed upon them. Certainly one has reason to question the exclusion of some of the German writers.

[2] GRICOURT-KUHN, *England past and present*. Part I., Geography and History. Part II., Literature. These two volumes are mainly compilations of well-chosen extracts from the best English writers, together with just enough connecting material by the authors themselves to give as intelligent a notion of the development of the Anglo-Saxon race and literature from the very beginning down to 1907 as is possible, considering the extremely cursory nature of the material in hand.

"All that we have just said about teaching the ancient languages" (basing it upon a serious course in grammar) "can and ought to be applied equally to the study of modern foreign languages,"[1] explains very tersely the heavy burden that oppressed modern language instruction until the reform instituted in 1901. Although preceding the new secondary school program by a few months, this change must nevertheless be reckoned as a part of the general reorganization. Since that time modern language instruction has been vitalized by the application of a new method that does not confound the teaching of a language whose chief benefit is attributed to the mental drill involved in its acquisition with that wherein the value consists primarily in the ultimate ability to handle the language practically. The modifications in modern language teaching are thus unquestionably the most significant of all those effected by the reform program, for they not only indicate a radical change of practice, but, what is more important still, they show a fundamental change of aim. One is impelled to question if the program in specifying that "the literary culture properly speaking will always be subordinate to the spoken or written use of the language, which remains the principal object of all its instruction,"[2] is not too readily allowing proximate utility to dominate. The old instruction was certainly too grammatical, literary, and formal. Is not the new too crassly utilitarian? Aside from the graduate classes preparing for the normal school, the instruction in most of the others that I visited reflected the evident desire of the professor who said, in criticising the methods formerly employed: "I read Byron in my year in the philosophy form, and I should not have been able to order my luncheon in a London restaurant." It is now doubtless true that "the pupils on returning from a trip abroad can tell us in confidence how, thanks to

Direct Method — Weakness in its Application.

[1] MANEUVRIER, *L'éducation de le bourgeoisie sous la république*, 3me ed., 1888, p. 192.

[2] *Instructions annexées à la circulaire du 15 Novembre*, 1901, § 9.

the recollection of the colored pictures commented upon in the lycée, they were intelligent guides and trustworthy interpreters for their families"; but is this the goal of modern language instruction? In the recoil from the undisputed evils of the old methods, has not the present exaltation of the immediately useful forced the student to forego that acquaintance with the great fundamental ideals that underlie the expression of the national action,—an acquaintance that can come only from wide and wisely chosen reading? If the pupils could learn to know a goodly proportion of the books named on the program, such an end might be approximated; but even from the fourth form up through the higher classes many a class is limited to two or three books a year. The necessary reduction of reading matter to this minimum naturally forces one to characterize the direct method as it is ordinarily worked out in the secondary schools to-day as manifestly superficial. On the other hand, one occasionally finds an enthusiastic teacher who says with justifiable pride: "Oh, yes, in the course as a whole, some of my boys read forty or fifty books, for they are passionately interested in the work, but naturally I cannot require all to do that."

Characteristics.

The direct method, which is none other than a modification of that promoted by Dr. Vietor of Marburg a little more than a quarter of a century ago, is essentially a conversational method. Although one does not find every individual modern language teacher in the French secondary schools applying the official instructions as unreservedly as the general inspectors might wish, yet even the older teachers in whom the habit-furrows have been worn deep by years of practice along classical lines, are making sincere efforts to adapt themselves to the new order of things. In a few classes that I visited, not one word of the mother tongue was uttered from the beginning of the hour until the end. In fact even the pupils that came up after the class were compelled to confine themselves to the foreign language. In a still smaller number of classes I found considerable

direct translation into the French intermingled with a goodly amount of conversation in the foreign tongue. In the main, however, save for occasional recourse to the vernacular to clear up difficulties, one might fairly say that the classes as a whole were conducted entirely in the foreign languages. The teacher spoke in the foreign tongue, the pupil read in the foreign tongue, and then *used the same medium* to explain what he had just read. It is not always easy to use a foreign language to summarize or to give an abstract of what one has just read in that language, but when one is required to paraphrase or to give a word-for-word explanation without recourse to the vernacular, the difficulty is considerably enhanced. Yet this latter is done from the very first. The best exponents of the direct method compel their pupils to act as much as possible like English, or German, or Italian, or Spanish boys throughout the whole of the hour.

In order still further to carry out this illusion, many of the modern language teachers, especially the English, have fairly covered the walls of their class room with maps of England, plans of London, posters, and notices of various kinds, all in the foreign language. Bill-board advertisements of plays (one that I saw must have covered at least forty square feet), military displays, county fairs, bicycles, automobile accessories, etc., were frequent. "Cyclists and motorists — speed not to exceed five miles an hour," "Time is money," and other similar signs were on the walls of one class room. Sometimes these formed a mere heterogeneous collection, but at others the selection and arrangement displayed considerable taste on the part of the teacher. Photographs of London landmarks and scenes typical of English life, together with well-chosen sets of picture postal cards, gave evidence that the trips to England, which many of these teachers make regularly, had had some other aim than mere pleasure seeking.

Illustrative Material.

Not a little zest is added to the work of the upper classes by the foreign correspondence carried on by some of the pupils, a practice that is productive of much good on both

sides. Many a boy in the French lycées has a correspondent in England or Germany, or even in America, whom he knows only by letter and an occasional exchange of photographs. Each one writes in the other's language, and the best results are obtained when the recipient of the letter is willing to take the trouble to correct the errors of his friend across the border. One of the most interesting of these relationships that I found was that of an older pupil in a small but illustrious provincial college who had a correspondent in Esperanto in Portland, Maine. In the Academy of Dijon, where this college happens to be situated, there is a great deal of interest in Esperanto, largely due to the enthusiasm of the rector, so that pupils in some of the secondary schools, some of the normal schools, and even in some of the higher primary schools have an opportunity to take up the study of this international language as an elective subject. The direct method enthusiasts practically neglect, or at least do not fully appreciate, one cardinal difficulty that must always stand in the way of the strict application of this method; even under the most favorable conditions the foreign environment may be simulated for five or at most ten hours a week, but for the other one hundred hours, approximately speaking, of his waking time, the pupil is surrounded by conditions that are exclusively French.

Additional Aids to Language Acquisition.

In order to ameliorate this situation the Ministry has recently [1] arranged for an interchange of assistants by which prospective teachers of French in the other countries come to France for assignment to various lycées, and young French students are reciprocally sent abroad to spend one or more terms in one of the foreign schools. The arrangement is ordinarily for

Foreign Assistants.

[1] In the girls' primary normal schools, a similar arrangement has been in vogue since 1894. The conventions between the Ministry of Public Instruction in France and the corresponding authorities abroad with regard to secondary schools were signed: with Prussia and England in 1905 (the agreement with the latter country extending also to the primary normal schools and to the higher primary schools), with Austria, Saxony, and Spain in 1907.

a year, although it may continue for only six months, or it may be extended to two years. In France the foreigners receive their living at the lycée, and in return spend a couple of hours per day in conversing with the modern language pupils, taking them by turns in small groups. While the French official in charge of these arrangements receives applications for appointment to these foreign posts, and sends the papers of each candidate to the corresponding office abroad, his function is chiefly that of a discriminating forwarding agent, the actual choice being left to the foreign office. Similarly, it is the French official who selects the foreign assistants appointed in France. The minimum qualification of the French candidates is the possession of the master's degree, while the foreign governments require an equivalent academic standing from the young men they send abroad. This movement which began very modestly is now expanding rapidly, and is apparently meeting with success and consequent hearty support wherever the experiment is tried.[1] It is bound to render valuable assistance in supplying a real foreign flavor and a point of view that must almost inevitably be lacking in a native foreign language teacher, however fluent may be his command of the spoken language.

Modern Language Clubs.

These foreign language assistants to a certain extent supply the place of modern language clubs. It has never been my good fortune to find such organizations in the secondary schools, though I am told they exist. It seems rather strange that the idea of the English clubs in the lycée at Alençon[2] has not been more widely adopted. Here there were two organizations, one for the younger pupils and the other for the older. Each group subscribed to an English magazine, the older one in addition taking one of the Paris daily papers printed in English. Besides the conversation based upon the

[1] According to the figures obtained from the office of M. Friedel who has charge of this work at the Musée pédagogique, Paris, in 1907-8, there were sixty-nine of these English assistants and seventy-five German.

[2] FRANÇOIS, *La conversation et la lecture dans l'étude des langues vivantes.* in *Revue universitaire*, 1902, I., p. 46.

material obtained from these two sources, the club meetings on Thursdays were further enlivened by recitations, songs, and dialogues. The one-franc entrance fee, together with weekly dues of ten centimes and absence fines of half that amount furnished the funds for the running expenses. The fact that there was no president, each member in turn presiding at the meetings, shows the typically French idea of such a school organization, wherein the direction is carefully centered in the hands of the class teacher.

Application.

Where so much depends upon the skill of the individual teacher and where mere routine plays such an insignificant part, it is not surprising to find less similarity between two English or two German classes than between two classes in any other subject of the curriculum. Wherever the direct method is tried consistently its results are certainly striking. Although the English *th* and the *r* constantly give trouble throughout the course, and the intonation of the sentence often leaves much to be desired, some of the French boys that I saw spoke remarkably well, and on the occasions when I was asked to address them, they succeeded unusually well in understanding what I had to say. Of course their vocabulary is limited, but when one confines himself to the words they know, they seem to have little difficulty in following. Many of those that I put to the test repeated in English the substance of what I had said, and the others, save for one or two exceptions, were all able to give it in French. One is compelled to admit that the direct method does enable the pupils to understand the spoken foreign language and does give a certain facility in its use. As a rule, however, the number of pages read by the class is comparatively small, in many cases not exceeding one hundred and fifty or two hundred during the whole year, but whatever is done is thoroughly done. The words contained therein become a part of not only the visual and the written vocabulary, but also of the aural and the oral. As in the acquisition of the mother tongue, the two latter come first and really provide the means by which the former are

gained. The approach is made through the utterance of the teacher and is subsequently carried on through its repetition by the pupil before the latter is brought face to face with the written thought. In the final stage, the pupil is led to express himself on paper. From first to last the stress is emphatically upon the oral expression. It must be remembered that this ability, being so dependent upon special training of the ear and the vocal chords, aside entirely from the facility in idiomatic construction involved therein, and being consequently so much a matter of practice, most easily falls into desuetude if these particular language habits are not kept in training. Skill in reading, on the other hand, where this aural and vocal training are not involved, seems to pass much less readily. The question immediately arises: "Do the permanent results attained justify the distribution of emphasis between conversation and reading?"

Such is the place accorded this oral work that throughout the whole first period, the sixth and fifth forms, the teachers have no official list from which to select their reading material. During these two years, effort is mainly directed toward forming a correct pronunciation, acquiring a working vocabulary, and learning enough grammar for intelligent and accurate oral and written expression. In pursuance of this purpose, the great majority of the teachers put into the hands of their pupils one of the several excellent beginning modern language books that have appeared since the new program went into effect. The teacher does not hesitate, however, to depart widely from the limits of the textbook in order to find illustrative material as a basis for conversational, written, or memory work. Learning by heart plays almost as important a part here as in instruction in the classics and in French, but an assignment is never set for memorizing without previously being read aloud by the professor and most carefully explained, always in the foreign language. This often taxes the ingenuity and skill of the teacher, particularly when it comes to the explanation of abstract nouns, but aided by pantomime and illustrative

example, he is seldom compelled to seek refuge in the vernacular.

Class Room Practice.

The following extracts from my note book will give an idea of the way this conversational method is handled in a beginning class. It shows the association of action and speech. It was a sixth form of forty-five pupils. The notes were written in December, the class having begun the October before. Teacher — "Lift up your hand." Class (in concert and suiting the action to the word) — "I lift up my hand." T. — "Lift up your right hand, your left hand, both hands. Shut your right eye, your left eye, both eyes." The pupils obeyed each command of the teacher, telling at the same time what each was doing. T. — "Where is your nose, your cheek, your chin?" Pupils — "This is my nose," etc. T. — "Point to the ceiling, the floor," and so on through various parts of and objects in the class room. Pupils — "I point to the ceiling, the floor," etc. One boy was called up before the class to go through the same process. Then the practice was varied by going around the class, each pupil telling his neighbor to perform some one of these actions, the boy doing as he was told and at the same time telling what he was doing. This was followed by short dictation of five or six lines, afterwards corrected by the writers with the open text before them. The memory work for the day was "Baa, baa, black sheep," first recited in concert and then by three or four individually, the teacher's corrections being almost exclusively applied to the latter. This collective work, which by the way is most inconsiderately used by many of the direct method teachers, is more objectionable in modern language work than in most subjects, for the details of pronunciation are nowhere else so important. In more than one English class that I visited where this concert method was in use, I was absolutely unable to catch more than an isolated word or phrase. Under these conditions it is perfectly evident that the teacher could not notice and correct even a fair share of the individual errors. In this class in

question, the last quarter of the hour was devoted to a very well developed preparation for the next lesson, which was on the progressive form of the verb.

In a third form class, this conversational method follows along much the same general lines, but it is no longer mere parrot work, and correspondingly more is required of the class, as the following example will indicate: Teacher (in preparation for the next day's memory work) — "I will read the next lesson by myself." Class (in concert) — "You will read the next lesson by yourself." T. — "I will read it first, and you will read it after me." Class — "You will read it first, and we will read it after you." The teacher then read the whole stanza through, afterwards reading one line at a time and having the class read after him. Then he read it all through again, the class doing likewise, and finally the teacher went over it once more, carefully explaining in English all the new or difficult expressions.

The most advanced and in many respects the best work I saw was in a higher rhetoric form, a class preparing for the normal school. The teacher, although a Frenchman born and bred, who, as I afterwards learned, had never spent more than a few weeks at a time in England, had a perfect mastery of English, so much so that at the end of the two hours spent in his class I was utterly unable to determine whether he were English or French. It was an unprepared lesson, which reproduced as nearly as possible the conditions of the examination the pupils would have to face at the end of the year. The text chosen was *King Henry IV.*, Pt. II., Act IV., Scene v. Each one was given fifteen minutes to look over his assignment of ten or twenty lines. He read it through in English, then explained the text, interpreting the figures and allusions, and commenting upon peculiarities of form or expression that seemed to him necessary. In case of important omissions the teacher asked for explanation of particular words or phrases. Finally the pupil translated the whole into the best French at his command. Aside from the last translation, the work was entirely in

English, and barring certain weaknesses in pronunciation and inflection, it was all remarkably good. It must be noted in passing that these fellows were not ordinary lycée pupils, for they were all one or two years beyond their baccalaureate, and had consequently been studying English for seven or eight years; they formed one of a number of preliminary groups from which the modern language teachers of five or six years hence would be recruited.

Results.

It is still too early to pass judgment on the definite results obtained under the application of the new method, for this year, 1908, is the first time when one will find pupils coming up for the baccalaureate that have been trained exclusively under this system. As far as one is able to judge from the expressions of individual teachers, I find very general satisfaction with the scheme, but, of course, the details of the method must be worked out each one for himself in accordance with the teacher's peculiar temperament and capability, and then adapted to fit the needs and capacity of the particular class. One of the general inspectors in collating the criticisms of his subordinates and in commenting thereon expresses general satisfaction with the results and assembles the criticisms under three heads:[1] (1) the lack of homogeneity in the classes; (2) the increased strain upon the teacher; and (3) the shortcomings due to a misapprehension of the programs and the official directions, on the lack of emphasis on the grammatical instruction, as well as a neglect of the culture aspect in the higher classes. The first of these, being due fundamentally to a failure to treat modern language instruction as seriously as that in most of the other subjects of the curriculum, is quite apart from the method itself. The remedies suggested by the inspector — to set rigorous promotion examinations, and to create supplementary classes for the weak pupils — will only palliate an evil primarily

[1] *Rapport d'un inspecteur général. Situation de l'enseignement des langues vivantes dans l'enseignement secondaire en 1905–1906. Revue universitaire,* 1907, II., pp. 93–109.

due to other causes. However valuable auxiliary aid these devices might render, the permanent cure can be effected only by abolishing the modern language study in the lower forms or else instituting it at least optionally in the corresponding classes in the primary schools. The other two criticisms, on the contrary, are intimately associated with the method itself. The nervous strain upon the teacher must always be reckoned with, for to the increased effort in speaking in a foreign tongue must be added the further responsibility for helping the pupils think likewise in a strange idiom and express themselves correctly. This is all carried on practically without respite for the whole hour. From my own observation, the teachers that apply the method most consistently are the most exhausted at the end of the hour. The weakness upon the grammatical side is undoubtedly due to a misunderstanding of directions, but where the test comes exclusively upon ability to speak and write correctly, imperfections here become more readily apparent. The lack of literary culture in the higher classes is a well founded and serious objection, at least as the method is applied at present, and one that cannot be entirely or even in large measure attributed to misunderstanding on the part of the teachers. It is to be hoped that the vital character of the criticism will result in a more liberal application of the official instructions so as to permit a greater emphasis upon reading and correspondingly less upon conversation during the third period.[1] The report above cited signalizes a disquieting tendency on the part of Spanish and Italian, particularly the former, to displace the English and, to a less extent, the German in some of the southern schools. The reason assigned by the local inspector is due to the "application of the law of the minimum of effort." The

[1] There are already evidences that, although the official regulations have not been modified, the authorities are not calling for a strict interpretation of the letter of the law quite so confidently as heretofore. It is even rumored in more than one quarter that the general inspectors have experienced a change of heart since the meeting of the Association of Modern Language Teachers in December, 1907.

German, required by so many of the higher government schools, is not likely to suffer materially, but there is already serious question of restricting the encroachment of these Romance languages, perhaps even by reducing them to the rôle of the second language studied, and so confining them to the second cycle of the course. In the words of one of the academy inspectors, "One is already beginning to ask one's self if, after having caused this Spanish infiltration, measures will not have to be taken to 'dike it out.'"

ERRATUM

(*Omission under Philosophy and Mathematics Forms, p. 223.*)

GERMAN AUTHORS READ IN THE PHILOSOPHY AND MATHEMATICS FORMS

(Philosophy A, 2 hours, optional; Mathematics A, 2 hours; Philosophy B and Mathematics B, 1 hour, and 2 hours additional, distributed according to the choice of the pupils.)

GERMAN. Extracts from the critics, historians, and philosophers: Lessing, Herder, Winckelmann, Humbold, W. and F. Schlegel, L. Börne, W. Scherer. — Niebuhr, L. von Ranke, Fr. von Raumer, Droysen, Mommsen, H. von Sybel, Gregorovius, Janssen, Treitschke. — Kant, Schelling, Fichte, Hegel, Schleiermacher, D. F. Strauss, Schopenhauer, Nietzsche, etc. Selections from contemporary poets: Anzengruber, K. Busse, Geibel, Gilm, Greif, Hamerling, Henckell, Hebbel, G. Hauptmann, P. Heyse, Liliencron, H. Lingg, K. F. Meyer, Th. Storm, Wildenbruch, etc.

CHAPTER XI

HISTORY AND GEOGRAPHY

HOWEVER important a part history plays in the secondary school program to-day, this progress has in large measure been a development of the last hundred years. The amount of historical knowledge in the possession of the college student at the time of the Revolution was decidedly limited. "A Frenchman of a century ago thought himself sufficiently informed if he was acquainted with the annals of his own country, with those of Judea, of Greece and of Rome, and with those of the different European people, but with these latter only so far as they directly concerned us."[1] Yet if one confines himself to inferences from the printed programs, this modest amount is certainly not an overstatement of the case. Even this was too often mere formal memorizing of historical facts, learned in strict catechetical form.[2]

History before the Revolution.

The *Ratio studiorum* contains no mention of history as a regular subject of instruction. Aside from the passing attention it may have received in discussing the subject matter of the historians, it was evidently treated with but slight consideration, for it was accorded a place only on holidays.[3] The absolute

The Clerical Teaching Bodies.

[1] FRARY, *La question du latin*, p. 230.

[2] See LE RAGOIS (*Précepteur de Monseigneur le Duc du Maine*), *Instruction sur l'histoire de France et romaine, Paris, nouvelle édition*, 1777. This text-book written by Le Ragois, preceptor of the Duc du Maine, son of Louis XIV., first appeared in 1684. It certainly enjoyed more than passing popularity for it went through numerous editions and save for additions demanded by the progress of the years appeared substantially in its original form as late as 1830.

[3] *Ratio studiorum* in GRÉARD, *op. cit.*, II., p. 285.

neglect of all modern history was due to no oversight on the part of the Jesuit fathers, but rather to a desire to eliminate from the program all subjects that might give rise to controversial discussions likely to disturb the tranquillity of the absolute control, intellectual as well as physical, exercised by the superiors. Their more liberal minded rivals, the Oratorians, however, assigned it a place more in keeping with its importance. From the very first, these latter schools seem to have had a special teacher of history and to have encouraged the study of modern as well as of ancient history. In fact the national history occupied three of the best years of the course, and, what is more noteworthy still, the instruction was given in the vernacular. Even as early as this, geography was a companion study to history. At Juilly, probably the most famous of the schools of the Oratorians, the first two years were devoted to sacred history, the next three to the study of Greece and Rome, and the last year to that of France.[1] Unsatisfactory though this course may be with its unnatural emphasis upon Greece and Rome, it marks a point considerably in advance of that actually reached by the university colleges nearly a century and a half later. History occupied a yet larger place in Arnauld's study plan for the Port-Royal schools,[2] being found in every class, both morning and afternoon, from the sixth to the rhetoric inclusive. The geography which accompanied it appeared only in the fifth, fourth, and third forms. Pierre Coustel, sometime a teacher at Port-Royal, and consequently reflecting something of the spirit of the education there, in enumerating geography among a group of sciences of which one must have at least a smattering, maintains that it is not only pleasant and useful, but "it is also absolutely necessary for all who aspire to sound learning,"[3] useful alike for the merchant and the soldier,

[1] Ancy, quoted in Hamel, *Histoire de l'abbaye et du collège de Juilly*, p. 221.

[2] Graham, *op. cit.*, II., pp. 286–287.

[3] Coustel, *Les règles de l'éducation des enfants*, 1687, II., p. 214.

and indispensable for intelligent reading of sacred or secular literature. History to him meant something more than biblical and ancient history. France, Italy, and Spain were important enough to be given a place, and to these were to be added, if time permitted, Hungary, the Turks, Poland, Sweden, and Denmark. Furthermore he distinguished between reading an historian to ascertain what he said, and reading him in order to discover the real truth. In the latter case a critical and comparative study was mandatory.[1]

Rollin and Rolland.

With Rollin a narrower humanistic influence prevailed, for he presents the curious anomaly of deliberately neglecting the very history whose value he admits. In offering the lack of time as his sole excuse for this omission he urges the necessity of inspiring in young men such a taste for the history of their own country that they shall be impelled to study it later when they will have more leisure.[2] Surely a most specious and dangerous line of reasoning to set before young people, for how many of the lists of books collected with such infinite pains are ever even looked at again! More than half a century later Rolland criticised most bitterly the plan that had long prevailed in the university colleges by which the pupils had history of the Old Testament in the sixth form, mythology in the fifth, Roman history in the fourth, Greek history and geography in the third form, Bossuet's Discourse on Universal History, the revolution in Portugal, the Venetian confederacy, Montesquieu's Grandeur of the Romans, and a brief history of France in the second form.[3] In demanding the reform of what he called an "abuse" he was merely voicing an opinion that was already becoming rife. Rolland himself went a step further and wanted to see local history introduced into each college, wherein the young men should be taught the memorable actions of the citizens of their own province with the hope that these

[1] Compayré, *op. cit.*, II. p. 257.
[2] Rollin, *Traité des études*, A. 1731, II. p. 164.
[3] Rolland, *Plan d'éducation*, 1768, pp. 183–184.

might serve as an inspiration to them to emulate the deeds of their ancestors. The course of history suggested by Rolland, extending from the sixth through the rhetoric (or first) form, is thus more comprehensive than any we have heretofore encountered, surpassing in extent and variety even that followed in the schools at Port-Royal.

Development during the Nineteenth Century.

Almost without exception, history is recognized in the numerous projects for reorganizing the system of public instruction that came up for discussion before the various bodies of the revolutionary period. The so-called decree of Romme, October 20, 1793,[1] contained an elaborate classification of history, dividing it into naval, political, industrial, and commercial, and emphasized its importance "for perfecting our industry and resources." History likewise appears on the program of the Central Schools, but seems strangely to have been slighted in the course of the military section of the *Prytanée* in 1801. Geography, which had formed a kind of unnamed subject of instruction for generations and latterly had served as a handmaid to history, finds a distinct place for itself in the original program of 1802.[2] For the time being it overshadowed the history, for it was taught in four of the eight classes as against three for the latter subject. The second lycée program seven years later deprived the geography of its temporary advantage, relegating it to the subordinate place it has continued to occupy ever since that time.

In the years immediately following the restoration of the monarchy there seems to have been a sudden awakening in historical thought, at least as far as the schools were concerned, which corresponds very closely to a similar movement in our American colleges. The program of 1814,[3] in lengthening the morning and afternoon classes, from the first of April until the end of the school year, from two hours to two hours and a half, prescribed that the half hour so gained

[1] GRÉARD, *op. cit.*, *annexes*, II, p. 240.
[2] *Ibid.*, pp. 246–247.
[3] *Ibid.*, pp. 248–249.

should be exclusively devoted to geography and history. Four years later two *arrêtés* were passed, one in the spring and the other in the fall, entirely reorganizing the history course. The sacred history and the geography in the sixth form remained undisturbed, and continued to be taught by the regular class teacher as before. From the fifth form upward, however, the work was put in charge of a specialist (a change that figures again in the reform of 1902 after many years of a different régime). In the fifth form, the program called for great epochs of ancient history, in the fourth, for Roman history up to the Battle of Actium, in the third, for the period from Augustus to Charlemagne, in the second, for from Charlemagne to modern times, and in the rhetoric form, for history of France. Throughout the course, history had two lessons of an hour each per week, but it was compelled to share this time with geography. The second regulation of that same year introduced general history in the second form, thus entailing a slight modification in the work of the earlier years. In 1826, the ancient history introduced into the sixth form included, in addition to sacred history, the history of Egypt, Assyria, Persia, and Greece. Geography had in the meantime been carried down as low as the eighth form. With the extension of sacred history to the eighth form four years later, we find history and geography practically covering the entire secondary course, a state of affairs that has continued, though not without frequent and in some cases radical modifications, until this very day. There have been various attempts to correlate these two subjects of instruction, notably in the plan presented by Villemain in 1843, and again in the reform under Minister Duruy a little more than twenty years later. In the main, however, each subject has been developed independently of the other, both following the lines of the logical order of instruction, the chief bond between them being that they were taught by the same teacher. By 1874, the amount of time devoted to history and geography, which had been increasing slowly and haltingly, reached three hours per week for each class

from the very beginning up through the philosophy form. The new program has increased this time allotment somewhat in several of the sections of the second cycle, but the most significant changes appear in the fundamental reorganization of the subject matter.

The old program had been formulated on the assumption that once the secondary school laid hold of a boy, he was a fixture there until the end of the course. The course of study apparently took no cognizance of the possibility that he might leave before completing the work, and it certainly offered no encouragement to anybody to come in from the outside after the course was once begun. The whole scheme was logically planned in such a fashion that it could be cut at neither end without serious and perhaps fatal detriment to the pupil, at least as far as carrying away any well rounded notions of the unity of historical progress was concerned. The new program has succeeded in obviating these two fundamental defects by a single device which is none other than the concentric circle plan already pursued for some time in the primary school course.

Under the program of 1890, the history of the sixth form began with Egypt, and thence covered the rest of the ancient world down to the beginning of Greek history. Greece furnished the subject matter of the fifth form, Rome of the fourth, and France and Europe, down to 1789, were distributed chronologically over the work of the third, second, and rhetoric forms. In the philosophy form, France was treated at length from 1789 to 1889, together with some slight attention to the rest of Europe, England, and the United States. Under the new program the work of each of the two cycles is as nearly as possible complete in itself. Thus the boy that leaves the lycée at the completion of the third form, has covered all the history of the world from ancient Egypt down to his own day. Not only has he gained some notions of the people that lived before the Christian era, but furthermore in his last and for him most important year, he has come to know

Catholicity of the Course.

that Italy, Germany, Austria, England, the Balkan States, and the United States, to say nothing of the nations of the Orient, each has a past, and each is making history as well as his own native land, a fact that many of our American high school pupils are likely to ignore. The course in geography has been made similarly comprehensive.

For the boy who passes through all the classes from the preparatory form up through the philosophy, this arrangement works no detriment. To be sure he goes over the history of France three separate times, but each time it is presented from a different point of view, and one corresponding to his superior intellectual development, a method which merely duplicates the child's normal way of getting in touch with the world about him.

The new program limits the biographical stories of the preparatory class to the heroes of the national history, and also bridges over the gap that formerly existed in the work of the seventh form by carrying the work down from 1805 to 1871. In the second cycle, the modern history which is common to all four sections begins with the tenth century and is carried down to the present. The C and D section pupils thus cover the earlier history only once, but the A and B sections review the history of Greece, Rome, and the other ancient nations, in a special two-hour course extending over the second and first forms. The work of the philosophy-mathematics form is in some respects the richest of the whole course. It is closely connected with geography throughout and practically gives a survey of all modern history from the restoration of the monarchy in France after the fall of Napoleon down to the events of yesterday. The extent of the field covered necessarily makes the work more or less encyclopædic in its character, but it offers a magnificent opportunity to show the enormous development that has taken place during the nineteenth century and the interrelation and interdependence existing among the various peoples of the world.

In the beginning class as well as in the two years of the

preparatory division, the history is almost exclusively anecdotal and biographical, drawing its subject matter indifferently from the domains of true and legendary history. One might rather call it a story telling class in which the children have to recount to the teacher the narrations he has told them. The geography during these same three years is treated in a less happy fashion, for its formal side is constantly emphasized. In the third year the child is lost in a maze of geographical terms, mountains, rivers, seas, gulfs, isthmuses, straits, cliffs, defined in most abstract fashion, and only shown to the eye on a wall chart picturing these and many more, all huddled together in most unnatural and appalling confusion. The ordinary teacher in the lower grades shows himself strangely unable to take advantage of the countless concrete situations of the life lying outside his very door in order to vitalize this elementary geography teaching. Home geography in the best sense of the word finds no place in this program.

Course in Lower Grades.

The more formal study of history and geography begins in the eighth form, the first class of the elementary division:[1]

EIGHTH FORM

History and Geography, 3 Hours a Week

History. Summary notions of the history of France, emphasizing the essential facts, from the beginning down to 1610. Brief summaries dictated by the teacher and recited by the pupil. Short examinations, simple narratives repeated orally by the pupil.

Geography. Elementary notions of general geography. The ocean. Hot and cold countries. Elementary descriptions of the five grand divisions. Form and extent of the continents. Principal countries with their capitals. Simple map drawing at the board and in the note books.

[1] Lack of space prevents giving the official programs in full. For the eighth and seventh forms, only the general subject of the year's work is indicated. Beginning with the sixth form, the topical headings are given.

SEVENTH FORM

History and Geography, 3 Hours

History. Summary history of France in the modern and contemporary period from 1610 to 1871. Brief summaries dictated. Simple narratives. Short explanations. [With very few exceptions, the subjects indicated on the detailed program are confined to the arts of war, campaigns, and the rise and fall of empire.]

Geography. Elementary geography of France and her colonies. Physical geography of France. Old provinces and departments. Cities. City, department, and region where pupil lives. Means of communication. Colonies. Free-hand map drawing.

The work thus far constitutes the first stage of the course. It covers substantially the same ground as that in the public primary schools, although it is not handled in quite the same fashion. If by any chance, a boy were compelled to stop his schooling at this point, he would carry away with him a fairly good notion of the world in general and of France in particular, and he would have become acquainted with the principal facts of the history of his own country down to the close of the Franco-Prussian war. With this general background the sixth form pupil is ready to undertake the further study of history and geography in accordance with the more logically developed programs of the secondary course proper.

End of the First Stage.

SIXTH FORM

History and Geography, 3 Hours

(Program common to Divisions A and B)

History. I. Ancient. Egypt, Chaldea, and Assyria. Jews, Phœnicians, Persians.

II. Greece. Troy to Alexander's conquest of Asia.

III. Italy. Etruscans to Cæsar's conquest of Gaul.

IV. Augustus to Theodosius.

Geography. I. General geography. The globe; relief; ocean; atmosphere; rain; climate; coasts; animal and vegetable life; man.

II. Polar regions. America: physical, political, and economic geog-

raphy (Canada, United States, Mexico, Brazil, Chile, Argentine Republic). Australasia: Australia, New Zealand, principal archipelagoes of the Pacific (Oceanica is taken up in conjunction with Asia).

FIFTH FORM

History and Geography, 3 Hours

(Program common to Divisions A and B)

History. The Middle Ages and the beginning of modern history.

I. Gaul, ancient and Roman. The invasions. Franks. Arabs. Frankish empire. France. England. Germany.

II. The church in the Middle Ages. Crusades. Society. Western civilization.

III. The Valois and the Hundred Years' War. France in the fourteenth and fifteenth centuries. Europe at the end of the fifteenth century.

Geography. Asia and Oceanica. Africa. Physical, political, and economic geography. Relations with Europe and America.

FOURTH FORM

History and Geography, 3 Hours

(Program common to Divisions A and B)

History. Modern times.

I. Maritime discoveries and establishment of colonies. Renaissance. Western Europe at the end of the fifteenth century. Struggle between France and Austria. Reformation. Religious wars. Characters and results of the Thirty Years' War.

II. Establishment of the absolute monarchy in France. Louis XIV. Society of the seventeenth century. French art, seventeenth century. England, seventeenth century.

III. France under Louis XV. England in the eighteenth century. Prussia. Austria. Russian Empire. Foreign politics in the eighteenth century. France before the Revolution. Louis XVI.

Geography. Europe. Physical, political, and economic geography; area and population of the principal countries. Means of international communication.

THIRD FORM

HISTORY AND GEOGRAPHY, 3 HOURS

(Program common to Divisions A and B)

HISTORY. Contemporary history.

I. The old régime in France. States General and Constitutional Assembly. Republic. Transformation of French society. Struggle against Europe. Consulate. Empire. Napoleon's foreign policy. Congress of Vienna.

II. Restoration. Louis Philippe. Arts, letters, and sciences in France in the first half of the nineteenth century.

III. Second Republic. Second Empire. Unification of Italy. Unification of Germany. The Eastern question in the nineteenth century.

IV. Commercial and industrial progress. European expansion. The Orient.

V. England. German Empire. Austro-Hungary. Russia. United States in the nineteenth century. France from 1870 to 1889.

VI. Government of France in the nineteenth century.

GEOGRAPHY. France and her colonies. Physical, political, and economic geography.

Characteristics of the First Cycle.

At the end of the first cycle the pupil finds himself back very nearly at the same point he left four years before. In re-covering the same circuit, he has gone further afield, he has thrown aside the restrictions of the former "drum and trumpet" history, he has traversed a domain where wars and rumors of wars, empires and dynasties, no longer constitute the only salient features of historical development. He has gone back to the beginning of known history, and has followed the evolution of human progress from ancient Egypt down to the nations of the present day. Not one of the great contemporary powers has been neglected; his interests have been centered, if only briefly, upon China and Japan in their relation to the development of the far East; and the last general topic, with its treatment of the central government, universal suffrage, the press, the democracy, popular instruction, obligatory military service, and labor legislation since 1848, has put him in close touch with recent developments and with some of the future problems of his own political life.

From the sixth form up the history and geography in each class are confided to a special teacher, whereas in the lower forms these as well as the other ordinary subjects are all handled by the class teacher. There is consequently a marked difference in the method of treatment that is even more noticeable than one is likely to encounter in passing from our grammar to our high schools. In the elementary division the teacher has followed a narrative method, telling the story to the pupils, and at the end of the hour dictating a summary of the essential points he has covered. The note book that contains these summaries thus constitutes the history text-book. From the sixth form upward it is almost exclusively a lecture method. The first twenty or thirty minutes of the hour are usually devoted to questions on the new work of the previous day. Few pupils are called upon, but each one is put through a searching interrogatory. These questions, however, are purely fact questions, never, so far as my experience goes, calling for any independent reflection on the part of the pupil. The last part of the hour is devoted to a purely formal lecture on the advance work. The boys take this down in their note books, and it serves as the basis of the question period the next time. These note books are on the whole remarkably neat and well kept. Occasionally one finds them embellished with picture postal cards representing historical buildings, the military and social dress of the period in question, in addition to the ordinary maps and sketches put on the board by the teacher. There is apparently no uniform practice as regards the use of text-books. Some classes have them, and some do not, but on the whole their use seems to be spreading, especially in the lower classes. The older teachers who have long depended upon the out and out lecture method are naturally slow to adopt a class text-book. The presence or absence of these, however, has no very appreciable effect on the method. A teacher belonging to the former group used the book merely as a point of departure. In the presentation of the partic-

Methods in History.

ular lesson that I heard he covered sixteen pages of the text-book in his lecture, emphasizing the important points, and at the same time speaking slowly and deliberately enough for the class to take down almost every word he uttered. A teacher of the other group, in response to my question as to what would be the result of putting texts into the hands of his pupils, replied: "They would not do the work assigned. If they did they would fail to get the proper perspective, and would be likely to emphasize the less important events. Even a lazy fellow will carry away something from the oral presentation of the teacher." This lecture method assuredly puts the pupils in possession of the facts, but it is of little value in developing in them any ability to select the wheat from the chaff for themselves, to cultivate that discriminative judgment so essential for serious historical work.

The general method in geography is substantially the same as that pursued in history, as is perhaps to be expected from the fact that both subjects are taught by the same teacher. On one or two occasions I also found the picture postal cards very intelligently applied to the teaching of geography. One enthusiastic teacher whose boys happened to be studying Switzerland and the Alps country had a fine collection of cards illustrating the geographical features of that region hanging on the wall at the front of the class. Much of the geography teaching in the lower forms, however, was decidedly dry and formal.

Geography.

The program for the history and geography in the first cycle is as follows:

SECOND FORM

MODERN HISTORY, 2 HOURS

(Program common to Sections A, B, C, and D)

I. Europe from the tenth to the fifteenth century. Rise of the nations. Society. The church. Civilization.

II. France from 1499 to 1559. European politics. Maritime discoveries and establishment of colonies. Renaissance. Religious crisis of

the sixteenth century. General politics of Philip II. England under Elizabeth. Civil wars in France, 1559–1610.

III. Establishment of the absolute monarchy in France. European politics, 1610–1660. The United Provinces in the seventeenth century. England, 1603–1660.

IV. England, 1660–1714. Louis XIV., absolute monarch. Foreign politics of Louis XIV. French society in the seventeenth century. Eastern Europe in the seventeenth century. Intellectual movement in Europe in the seventeenth century.

Ancient History, 2 Hours

(Program common to Sections A and B)

I. Prehistoric times. Egypt. Chaldea. The Jews. Phœnicia. The Persians.

II. Greece. Early times. Myths. Sparta. The tyrants. Athens. Greek colonization. Civilization up to the fifth century. Persian wars. Formation of the Athenian Empire. Athenian democracy. Peloponnesian war. Spartan supremacy. Theban supremacy. Macedonian supremacy. Extension of Greek influence. Final struggles in Greece.

Geography, 1 Hour

(Program common to Sections A, B, C, and D)

I. Discovery of the world. Geographical science.

II. The world in the universe. The terrestrial globe in its present state. The solid element. The liquid element. The gaseous element. Streams. Coasts. Minerals. Flora and fauna. Modifications of the earth's surface.

III. Man. Present population of the earth. Man and nature.

IV. Principal features of economic geography of the globe. Food products. Textiles. Fuel. Precious and useful minerals. Present economic world.

FIRST FORM

Modern History, 2 Hours

(Program common to Sections A, B, C, and D)

I. France under Louis XV. England in the eighteenth century. Russian Empire in the eighteenth century. Prussia in the seventeenth and eighteenth centuries. Austria in the eighteenth century. Continental politics, 1715–1763. Colonial politics. Rise of English colonies. The Eastern question up to 1795. General characteristics of the eighteenth century.

II. Louis XVI. France in 1789. Monarchical period of the Revolution. Republic. Struggle against Europe, 1792–1802. Consular and imperial government. Foreign politics of Napoleon. End of the Empire.

Ancient History, 2 Hours

(Program common to Sections A and B)

I. Description of Italy. Primitive Rome. Religion. Roman army.

II. Conquest of the Mediterranean basin. Consequences. Political life. Provincial administration. Gracchi. Marius and Sulla. Pompey. Cæsar. End of the Republic.

III. Augustus. The emperors. Roman Empire in the third century. Civilization under the Empire. Roman law. Christianity. Constantine. Last days of the Empire.

IV. The barbarians. Frankish Gaul. Eastern church. Re-establishment of the Empire. The Arabs. Byzantine Empire from the fifth to the tenth century.

Geography, 1 Hour

(Program common to Sections A, B, C, and D)

I. Geological constitution. Beginnings of the French nation.

II. Study of France by great natural divisions.

III. Administrative régime. Economic geography.

IV. The colonies. France in its relation to the world.

PHILOSOPHY AND MATHEMATICS FORMS

History and Geography, 3 hours during one semester and 4 hours during the other, one of the hours each week being devoted to geography.

(Program common to Philosophy A and B, and Mathematics A and B)

History, Contemporary. I. Restoration in Europe. Constitutional monarchy in France. England up to 1848. Intellectual movement in Europe during the first half of the nineteenth century.

II. Revolution of 1848 and the reaction. Second Empire. National wars. Eastern question.

III. Catholic church. France, 1870–89. German Empire. Austro-Hungary since 1860. England. Spain. Belgium. Switzerland. Russia in the nineteenth century. Intellectual movement during the second half of the nineteenth century.

IV. Commercial and industrial progress. European powers in Africa; Asia; America.

V. General characteristics of contemporary civilization: respect of

person; religious liberty; political freedom; democracy; social doctrines and labor legislation.

GEOGRAPHY. Principal powers of the world: British Isles; Holland and Belgium; Germany; Switzerland; Austro-Hungary; Italy; Russian Empire; China and Japan; United States; Argentine Republic and Brazil. Principal means of communication.

Characteristics of the Three Periods.

Thus for the third time the pupil completes his study of history and geography. The necessarily sketchy national history of the elementary classes has been elaborated and supplemented by the successive stages of the two cycles of the secondary course proper, and now France no longer stands forth as an isolated unity, but while retaining her national individuality, she appears in her true light as intimately related to and closely dependent upon the other countries of the world. Throughout the whole course, at least of modern history, France has formed the point of departure, the background, so to speak, against which the developments in the other countries have been projected. These three stages are not simple reviews, though the warp and woof of the facts are necessarily the same, but each looks at the question from a different point of view from the preceding. One might characterize the dominant note of the history of the elementary period as biographical, gradually dissolving to military or dynastic; that of the first cycle as political; that of the second as social and economic. The following quotations from the official program will show the different method of treatment in the last two periods:

THIRD FORM	FIRST FORM
The states general and the constitutional assembly. The constitution of 1791.	The monarchical period of the Revolution. The states general and the constitutional assembly. Abolition of the old régime. Transformation of French society by the Revolution. The constitution of 1791. The legislative assembly; resistance of the king; formation of the republican party; fall of the monarchy.

THIRD FORM	PHILOSOPHY FORM
The Eastern question in the nineteenth century.	The Eastern question. Disorganization and dismemberment of the Ottoman Empire; formation of the Christian Balkan States. Crimean war. Balkan war. Congress of Berlin. The Balkan States since 1878; Austria a Balkan power.

It is instructive to note that every boy in the French secondary school proper has a comprehensive course in history from the very earliest times down to the present day, with the period from the tenth century covered twice. In addition to this, the Latin-Greek and the Latin-modern language pupils have a year of Greek and a year of Roman history during the second cycle. In the so-called graduate classes where the boys are preparing for the higher government schools those parts of the general field that are demanded by the entrance examination programs are still further reviewed, but in most of these classes inasmuch as the examinations make little or no call on their candidates for independent interpretation, the work is treated from a narrower point of view. One prominent and successful history teacher in Paris frankly told me that the method in the classes he was preparing for the military school at Saint-Cyr differed widely from that followed in his other classes. "There is less attempt to develop the mind," he added, "than to fill it with information by way of preparation for the examinations."

Scope of the Course.

The general result of the geography program is much less satisfactory than the history. Although geography receives a trifle less than one half the time assigned to history, the distribution offers considerable ground for criticism. Of the nine years devoted to the subject from the eighth form through the philosophy, France receives three years, general geography nearly that amount, commercial geography

Geography and its Weakness.

one year, Europe one year, and Asia, Oceanica, and Africa together, one year. America, Australasia, and the polar regions are assigned a portion of the sixth form work, which is chiefly devoted to general geography. Even where the program insists upon confining the political and economic geography of America to Canada, the United States, Mexico, Brazil, Chile, and the Argentine Republic, the time devoted to the United States cannot be very extensive. The United States figures again in the program of the philosophy form where it occupies one of the ten paragraphs devoted to the principal powers of the world. There is thus good basis for the implied question in a recent magazine article: "Take a bachelor of to-morrow and ask how much that young citizen at the end of his studies knows of that enormous power, so menacing for Europe of the twentieth century, the United States of America."[1] The author pointedly continues: "The history program permits us to show men at work but we have too little information about what they are working on." There is no question but that in the French schools geography suffers from its association with history,[2] for the method of the

[1] DUTIL, *Sur l'enseignement de la géographie*, in *Revue universitaire*, 1903, I., p. 249. Far more painful and serious defects appeared in the examination for the *agrégation* in 1907. See LANGLOIS, *Agrégation d'histoire et géographie, concours* 1907, in *Revue universitaire*, 1907, II., pp. 277–296. The geography question in the written examination was: "The Mississippi." M. Langlois characterizes the answers as "mediocre" and says that the characteristics of the river and the climate of the valley were the particular stumbling blocks. "A good half of the candidates did not know that the maximum rainfall occurred during the summer. Some thought that the Pacific was the source of the moisture, and one declared that the Rocky Mountains 'n' arrêtent nullement les eaux des vents pluvieux du nord-ouest.'" Another placed the source of the Mississippi in the Great Lakes, and explained at length their influence in regulating the flow. Such ignorance as this on the part of candidates for the teacher's certificate is vital. There is more than a mere question of fact involved, for the Mississippi Valley is the source of the greater part of the agricultural wealth of our country. What accurate conception of the significance of the results can there be in the face of such ignorance of the fundamental conditions?

[2] VIDAL DE LA BLACHE, *La conception actuelle de l'enseignement de la géographie*, in *Conférences du Musée pédagogique*, 1905, p. 118.

latter dominates the former. History is essentially a subject that must be studied at arm's length, so to speak. We can seldom come into personal relations with the great makers of history, or at least if we do, our ideas are almost inevitably distorted by our proximity. In history, we need the perspective of time in order to assure sane, unbiassed judgments. Geography, on the other hand, is best studied by actual contact with the phenomena in question. Unfortunately, the conditions of school life make thorough application of this idea unattainable, but the resourceful teacher can find many opportunities for illuminating the dry pages of the text or lecture. There is absolutely no value in a child learning a verbal definition of a spring or a river system, unless he has at the same time some clear conception of the natural phenomenon he is defining. Likewise it is much less important for him to be able to rattle off the names of the tributaries of the Seine, or to know that the silt carried down by the Loire amounts to 375 cubic meters in a certain unit of time, whereas in the Seine it is only 300 cubic meters, and in the Rhine 1,450, than it is to understand the influence of these tributaries and the significance of this silt as affecting the character of these streams and their usefulness. There are gratifying evidences among the younger teachers of a tendency to depart from these traditional formal methods that many of the older men cling to most tenaciously, but the secondary school teachers of geography are yet considerably behind their fellows in the primary system in employing any such simple device as the stereopticon for vitalizing their formal teaching. Too often they lose sight of the fact that each of the two subjects they are teaching has a method peculiarly its own, and they thereby neglect the specific admonition of the official instructions that "they should devote all their efforts not only to the teaching *of* the geography, but also to educating *through* the geography."[1] The hopeful sign

[1] *Instructions concernant les programmes de l'enseignement classique*, p. cvi.

about this whole matter is that many teachers are chafing under a situation that is already becoming intolerable. One ingenious writer[1] suggests the appointment of an assistant master or probationer in every school who should supplement the class work of the regular history and geography teacher just as the modern language assistants do in their department. This, as well as most of the suggestions to ameliorate the situation, is merely a makeshift. To effect a permanent cure, either the program must be considerably restricted or the time substantially increased.

[1] MACHAT, *La classe d'une heure en géographie*, in *Revue universitaire*, 1906, II., p. 100.

CHAPTER XII

MATHEMATICS AND SCIENCE

SATURATED with humanistic ideas, and dominated by the spirit of classicism as it was, it is little wonder that the college curriculum before the Revolution gave practically no place to instruction in mathematics and the sciences. These two subjects were stretching toward each other,—the one from the simple arithmetic of the elementary instruction, and the other from the physics of the philosophy course in superior instruction, until the connecting link as represented by algebra and geometry should be slipped into place in the colleges. Abbé Fleury, writing in 1686, complained that arithmetic was begun too early, and recommended that it should be postponed until the "reason was entirely formed, as at ten or twelve years of age."[1] In the Jesuit schools, since the great majority of the pupils left at the end of the rhetoric form, there was comparatively very little training in the scientific disciplines, the latter being reserved for the philosophy course. This extended over three years: the first devoted to logic, the second to physics and mathematics, and the third to metaphysics.[2] The physics, exclusively the physics of Aristotle, and therefore in the hands of the professor of philosophy, made up the major part of the second year's

Early Scientific Instruction.

[1] FLEURY, *Traité du choix et de la méthode des études*, Paris, 1686, p. 180. In those days the arithmetic consisted of the four fundamental rules, the pupils being taught "to reckon with counters and with the pen, . . . to handle the weights and measures in common use. . . . Later he came to the more difficult rules, . . . and finally, if time and ability permitted, he was taught the science of proportions."

[2] *Ratio atque institutio studiorum societatis Jesu*, 1603, pp. 84–86.

work. The relatively insignificant amount of mathematics was chiefly Euclid, eked out with "some notions of geography and of the sphere."[1] Mathematics and science were quite beyond the reach of the influences tending to modify instruction in the humanistic branches during the seventeenth and eighteenth centuries, and the Revolution found them practically as the *Ratio studiorum* had left them nigh upon two hundred years before. Physics was intimately associated with philosophy, and mathematics, since it was looked upon as essential for engineers and architects, and so of use for only a small number of those preparing for professional life, was excluded from the ordinary course of study and left for institutions of special instruction.[2] At the end of the old régime, mathematics and science as subjects of general instruction had made little progress. In 1782 Rolland enumerated very few institutions that were offering special instruction in these subjects. He cites: chairs of mathematics at the Collège Mazarin and at Tours (1779); one of experimental physics at the Collège de Navarre in Paris, and two but just founded in Toulouse and Montpellier respectively (1782). To these he adds a chair in hydrography established the year previous at the college in Rouen, and one in natural history at the Collège Royal (the College of France).[3] A professor of mathematics and one of natural history had also been appointed a few years before at the College of Saint-Omer in Flanders. By this time the course in philosophy had been cut to two years, the physics sharing the time with logic, metaphysics, and ethics. Instruction in all of these four subjects was given in Latin, and the scho-

[1] *Ratio atque institutio studiorum societatis Jesu*, 1603, p. 93. "Physicae auditoribus explicet in schola tribus circiter horae quadrantibus Euclidis elementa: In quibus postquam per duos menses aliquantisper versati fuerint, aliquid geographiae vel sphaerae, vel eorum, quae libenter audiri solent, adjungat: idque cum Euclide, vel eodem die, vel alternis diebus." This program was practically unchanged until 1832, when modifications were introduced in order to enable the Jesuits to compete with schools giving modern scientific instruction.

[2] GUYTON DE MORVEAU, *Mémoire sur l'éducation publique*, 1764, p. 265.

[3] ROLLAND, *Plan d'éducation*, p. 117.

lastic method of the Middle Ages still persisted.[1] The Revolution, with its abolition of the old order of things, opened the way for the entrance of the scientific subjects into the secondary school curriculum.

Talleyrand's bill, the first great scheme introduced into the legislative assembly for educational reorganization, only reproduced the old ideals in a modified form. In the spring of the following year Condorcet ran quite to the opposite extreme, and his project represents the almost absolute subordination of letters to science. The program of his *Instituts*, corresponding to the secondary schools of to-day, contained little else than scientific instruction, — science, mathematical and physical; science, moral and political; science pure; and science applied to the fine arts and to the occupations of every-day life, — the dream of an extremist, but nevertheless the inevitable reaction in the mind of one of the great revolutionists against the narrow humanism of the Jesuits and the old university. He shows the radical nature of his position in saying that "science is the surest means for developing the intellectual faculties; for teaching accurate reasoning and correct analysis of the thought;" . . . that "against prejudice, against narrowness of mind, science furnishes a remedy more universal, if not more trustworthy, than philosophy itself;" . . . and the books of the ancient languages, filled as they are with inaccuracies, are more likely to be a hindrance than a help in developing the reason.[2] The subsequent schemes of educational reform presented to the various revolutionary bodies vacillated between these two extremes, though the prevailing tendency was naturally toward the more radical attitude. The breach in the old humanism had been made, and the entrance of scientific studies into the secondary program was henceforth easy.

Condorcet's Revolt against Classicism.

[1] ROLLAND, *Plan d'éducation*, p. 114.

[2] CONDORCET, *Rapport et projet de décret sur l'organisation générale de l'instruction publique.* Reprinted in HIPPEAU, *L'instruction publique en France pendant la Révolution*, p. 203 *et seq.*

Inasmuch as scientific studies were already monopolizing one of the three sections of the course in the Central Schools, it could not have been entirely unexpected when Napoleon decreed (1802) that the subjects of the new lycée curriculum should be essentially Latin and mathematics.[1] There were six classes in each subject which could be covered in three years, but the two lowest classes in Latin formed a necessary introduction to the lowest class in mathematics. In the beginning Latin class, the classical teacher taught ciphering, and in the succeeding class, the "four rules of arithmetic," thus serving the double purpose of acquainting the Latin pupils with the essential elements of arithmetical knowledge, and of giving the mathematical pupils the fundamental principles upon which their subsequent work could be based. This science course included besides mathematics: natural history, physics, astronomy, chemistry, mineralogy. At the conclusion of this regular program, there was a two-year additional course in mathematics, known as *mathématiques transcendantes*, which treated in the first year the application of differential calculus to mechanics and the theory of fluids, and the application of geometry to plan and map drawing; and in the second year the general principles of advanced physics, especially in their application to electricity and optics. This extra course was the beginning of the advanced mathematics classes that we find in the secondary schools to-day. Inasmuch as after the first two years of Latin, these two courses ran parallel, it was hardly a breaking in of science into the classical curriculum, but rather an option between two distinct fields of work, classics *or* science. The program of the *Prytanée* of the year before had offered a similar choice in the second part of the course between the civil and the military sections. This latter was the real precursor of the definite bifurcation of the course that took place under Minister Fortoul in 1852.

Science in the Secondary Course.

[1] *Recueil de lois et règlemens concernant l'instruction publique*, II., pp. 305–307.

The program of 1814 contains the following interesting provision with reference to science teaching, upon which unfortunately we can throw no more light than is found in the Statute itself: "The lessons in physics on Thursdays" (the secular holiday of the week, it will be remembered) "will be common to the pupils of the third, second, and rhetoric forms. The professor will teach throughout the three years the principal objects in natural history, their most striking properties, and the use to which they are put in the arts. One year he will study animals and vegetables; one year minerals and chemistry; one year experimental physics."[1] At the same period the mathematics work, although restricted to the second, rhetoric, and philosophy forms, included arithmetic, algebra, geometry, plane trigonometry, statics, and mathematical physics. All this for classical pupils indicates a great advance in their liberal culture over what prevailed even in the first lycée plan.

Science in 1814.

Aside from devoting the second year of the philosophy form (added in 1820) entirely to mathematics and science in 1821, there was no real fundamental modification in this part of the program until 1840. At that time Minister Cousin, believing that the science work was not only profitless in itself, but was furthermore actually injuring the classical studies, boldly swept it all away from the sixth to the rhetoric form inclusive, and massed it in the philosophy form. This practically consisted of three sections: first the old philosophy; second elementary mathematics, a parallel course in which the time assignments of philosophy and mathematics are exactly transposed; and third an additional year called special mathematics, entirely devoted to mathematics and physics. The elimination of so much mathematics proved too radical a measure, so, later in the same year, part of it was restored and made optional. Thus the scientific subjects strove against the classics with

[1] *Recueil de lois et règlemens concernant l'instruction publique*, V., p. 516.

varying degrees of success, constantly gaining in prestige, if not in recognition in the program, until the bifurcation of Minister Fortoul in 1852[1] practically put them on the same footing. It was a repetition of the first lycée program with a common course, this time for five years, and a bifurcated course for four years more, the letters section with comparatively little science preparing for the baccalaureate in letters, and the science section with comparatively little Latin preparing for the baccalaureate in science. The science of the letters program was meagre enough, including only arithmetic, geometry, a little physics, chemistry, natural science, and cosmography. The real science course on the contrary was correspondingly rich, at least in subject matter, the program embracing arithmetic, geometry, algebra, trigonometry, surveying, analytic geometry, plan drawing, physics, chemistry, natural history, cosmography, and mechanics. The preparation for the military and engineering schools was thus reaching a higher and higher level. In the meantime, the creation of a "special" secondary course, begun in 1848, and carried to successful completion under Minister Duruy in 1863 and 1866, originally including a small amount of Latin, but in its final form entirely "modern," was an effort to satisfy the growing demand for adequate, practical, mathematical and scientific instruction. Although passing through successive modifications and demanding more and more time and ability on the part of its followers, it never gained the prestige enjoyed by the classical culture. In the eyes of the general populace it was always looked upon as subordinate to the ancient learning. The new programs have finally placed the scientific culture and the literary culture on equal footing, at least as far as official prescription can do so.

In the elementary classes, the science work is restricted to arithmetic and nature study, or more properly speaking, nature

[1] *Règlement d'études des lycées*, in FORTOUL, *Réforme de l'enseignement*, pt. I., vol. I., p. 99 *et seq.*

talks, for it seldom rises to the level of a real study of nature itself on the part of the pupils. The arithmetic covers a thorough formal drill in the four fundamental operations, both mental and written, some attention paid to fractions, a very elementary treatment of proportion and simple interest, and the application of the metric system to the measurement of surfaces and the simpler solids the parallelopiped, cube, prism, and cylinder. The nature work includes, in the beginning class, acquaintance with the simple facts of common knowledge, direction, time, seasons, distinction of animal, mineral, and vegetable kingdoms; in the preparatory classes, the occupations and the products that touch their daily life, the farmer, the miller, the baker, the vineyardist, clothing, fuel, metals, means of locomotion; in the eighth form, domestic and wild animals, birds, fish, insects, the forest, the field, the garden; in the seventh form, materials employed in construction, whence obtained and how used, the winds, the different forms of water, volcanoes, fossils. As far as practicable, the teacher shows the various objects to the pupils, and occasionally the Thursday afternoon walks are utilized to complete the knowledge thus presented, but on the whole the net result amounts to a good deal of information *about* things rather than a thorough, first hand acquaintance *with* things. The French child finds in his parents an inexhaustible and ever ready source of information about the common things of life, and I am inclined to believe that this nature work of the school is immeasurably reinforced by the parent in the home. In the two years I have spent in France, I have overheard more common knowledge instruction while passing along the streets than in all the rest of my life in America.

Elementary Instruction.

The following detailed programs will give a clearer idea of the scope and character of the science instruction that is given in the secondary course proper:

SIXTH FORM

Division A

Arithmetic, 2 hours. Review of operations with whole numbers. Mental work in problems, whole numbers. Common fractions. Reduction of fractions to common denominator. Decimals.

Natural Science, 1 hour. Zoölogy. About three lessons devoted to man and his place in the animal kingdom. Vertebrates: mammiferous animals; birds; reptiles; batrachians; fish. Articulates: insects; arachnids; crustaceans. Molluscs. Worms. Sea urchins and star fish. Polyps and medusæ. Sponges.

Division B

Arithmetic, 3 hours. [Same program as for Division A.][1] In addition, metric system in its practical application to area, volume, weight, density, time, velocity. Proportion solved by reduction. Simple interest.

Natural Science, 2 hours. [Exactly the same program as for Division A, the extra time allowing a more detailed study.]

FIFTH FORM

Division A

Arithmetic, 2 hours. Metric system. Reduction. Proportion solved by reduction. Simple interest. Use of letters to represent unknown quantities. Simple problems leading to equations of the first degree.

Natural Science, 1 hour. Botany. Elementary study of organs of a flowering plant. Root. Stalk. Leaf. Flower. Fruit. Seed. Great divisions of vegetable kingdom. Phanerogamous and cryptogamous plants.

Division B

Mathematics, 4 hours. Arithmetic [Except for the work in proportion and the extraction of the square root, substantially the same as for the fourth form, Division A].

Geometry. [The same as that for the fourth form, Division A, with rather more emphasis upon the construction side.]

Mechanical Drawing. Constructions met in the geometry. Simple problems based on the geometry. Graphic solutions. Geometric designs applied to the decoration of plane surfaces. Ink and color wash.

Natural Science, 2 hours. Botany as given in Division A, and Geology as given in the fourth form, Division A.

[1] The brackets [ ] used here and in the following pages indicate the author's summary, rather than the abbreviated form of the official program that is ordinarily followed.

FOURTH FORM

Division A

Mathematics, 2 hours. Arithmetic. Product of a sum or a difference by a number. Powers. Divisibility by 2, 5, 9, 3. Prime numbers. G. C. D., L. C. M. Proportion. Practical rule for extracting the square root of a whole number or a decimal to within less than a given degree of accuracy.

Geometry. Use of the ruler, square, compass, and protractor. Straight lines. Angles. Triangles. Perpendicular and oblique lines. Parallels. Parallelograms. Circle. Measurement of angles. Elementary constructions on the straight line and the circle.

Natural Science, 1 hour. Geology. Study of soil modifications, as far as possible from samples found in the neighborhood. Rains; their effect on the soil. Sediment. Detritus. Permeable and impermeable strata. Snows. Winds. Rocks. Volcanoes. Hot springs. Earthquakes. Life. Peat. Coral islands.

Division B

Mathematics, Book-keeping, and Mechanical Drawing, 5 hours. Arithmetic. Common and decimal fractions. Practical rule for extracting the square root of a whole number or a decimal to within less than a given degree of accuracy. Arithmetical and geometrical progression. Commercial methods of computing interest and discount. Discounts. Accounts. Commercial Paper.

Geometry. Division of a line in a given ratio. Proportional lines. Similar triangles. Definition of sine, cosine, and tangent of an angle. Similar figures. The pantograph. Polygons. Fourth proportional. Geometric mean. Areas of polygons. Area of the circle. Construction of cissoid, conchoid, etc.

Book-keeping. Commerce. Merchants. Middlemen. Shipping. Bills and day book.[1] Receipts and cash book. Commercial paper. Clearing house. Discount and bills of exchange.

Mechanical Drawing. The same program as in the previous class. Graphical construction of geometric loci; tracing the curves with pen.

Physics and Chemistry, 2 hours. Physics. Weight: first notions of force, plumb line, center of gravity, double weighing; specific weights and densities. Equilibrium of liquids and gases: pressure; hydraulic press; elevators; principle of Archimedes: atmospheric pressure; Mariotte's law. Heat: specific heat; fusion; vaporization; boiling

[1] The French system divides the actual book-keeping into three very distinct groups, entitled respectively *comptabilité des marchandises*, *de la caisse*, and *du portefeuille*, which concern themselves respectively with the mere paper transactions of orders, bills, etc., with the receipt and disbursement of actual cash, and with other media of payment, checks, drafts, notes, money orders, etc., and with the operations of the clearing house.

point; distillation; application to transmission of heat, and protection against heat and cold.

CHEMISTRY. Various states of matter. Air. Oxygen. Nitrogen. Water. Hydrogen. Hydrochloric acid. Chlorine; its compounds and uses. Sodium. Sal ammoniac. Metals, metalloids. Law of definite proportions. Formulæ. Acids, bases, salts. Sulphur. Saltpetre. Phosphorus. Carbon. Carbon dioxide. Silicon. Boric acid.

THIRD FORM

DIVISION A

MATHEMATICS, 3 hours. ARITHMETIC. Exercises upon the metric system, and upon quantities directly and inversely proportional.

ALGEBRA. Positive and negative numbers. Monomials and polynomials: addition, subtraction, multiplication. Identity: $x^3 - a^3 = (x - a)(x^2 + ax + a^2)$. Division of monomials. Numerical equations of the first degree, one or two unknown quantities. Inequalities with one unknown of the first degree.

GEOMETRY. [Identical with the program in the fourth form, Division B, with the exception of the area of the circle, and the construction of the curves.]

DIVISION B

MATHEMATICS, 4 hours. ALGEBRA. Positive and negative numbers. Monomials, polynomials: addition, subtraction, multiplication. Identity: $(x^m - a^m) = (x - a)(x^{m-1} + ax^{m-2} + \ldots + a^{m-1})$. Division of monomials. Equations of the first and second degrees. Relations between coefficients and roots. Graphical representation of: $ax + b$; $ax^2 + bx + c$; $\frac{ax + b}{a'x + b'}$. Four-place logarithmic tables. Compound interest.

SOLID GEOMETRY. Plane and line in space. Dihedral angles. Projection of a polygon, a circle. Polyhedral angles. Surface and volume, prism, pyramid, cone, cylinder. Tangent plane. Circumscribed sphere, cone, and cylinder. Projection shades and shadows. Surfaces of revolution. Surface and volume of sphere. Color work. Plan drawing, surveying, levelling.

PHYSICS and CHEMISTRY, 2 hours. PHYSICS. Acoustics. Optics: luminous and non-luminous bodies; reflection and refraction; images; vision; lens; composition of light; photography. Electricity: induction; electric machines; conductors; magnetic field; electrolysis; resistance; ohm; volt; watt; important applications of the electromagnet; induction; atmospheric electricity; lightning rod.

CHEMISTRY. Metals and alloys. Sodium. Limestone. Oxide and sulphide ores. Iron. Steel. Copper. Lead. Zinc. Aluminum. Porcelain. Glass. Silver. Gold. Money alloys. ORGANIC CHEMISTRY

(half the course). Hydro-carbons. Illuminating gas. Methyl alcohol. Acetic acid. Ether salts. Glycerine. Glucose. Starch. Phenol.

NATURAL SCIENCE, 1 hour. ZOÖLOGY. (In this course, the teacher, in showing the principal characteristics of the various functions, will pay particular attention to the biological principles relating to man's food supply and health: hunting, fishing, domestication and training of animals. He will treat briefly the animals associated with man's daily work, as well as the plants and animals that provide his chief clothing supply.)

Digestion. Respiration. Circulation. Animal heat. Nervous system. Locomotion.

BOOK-KEEPING, 1 hour. Open accounts. Theory of accounts. Balance sheet. Inventory. Investments in securities. Brief study of the great commercial, economic, and financial institutions.

Comparative Programs of the two Divisions: Mathematics.

The same purpose appears here that has already been noted in the case of the history and geography, namely: to provide for those pupils that may leave school at the end of the first cycle. Inasmuch as these are more likely to be found among the non-classical pupils, this tendency is more marked in Division B. The scope of the mathematics and science is a little wider; the subjects bear rather more strongly on the human side. On the other hand, inasmuch as these pupils are looking forward to becoming specialists in some field of science, their studies lay more stress on the theoretical aspect of the subject, a point typically exemplified by the following identities taken from the third form algebra:

Division A: $x^3 - a^3 = (x - a)(x^2 + ax + a^2)$
Division B: $x^m - a^m = (x - a)(x^{m-1} + ax^{m-2} + \ldots + a^{m-1})$

In spite of the two extra hours for arithmetic, Division B covers very little more ground than Division A, but the additional time permits a more thorough treatment of the subjects in question besides providing opportunity for more careful drill on the processes most frequently used in book-keeping. The mechanical drawing, which for some peculiar reason is associated with the mathematics in the sixth, fifth, and fourth forms, in the third form shifts over to the drawing caption where one would naturally expect to find it.

Throughout these first years, it is very closely correlated with the mathematics, proving particularly useful in the solid geometry of the third form. The one hour of book-keeping in the fourth form with the possible additional hour in the third form finds no counterpart in Division A. Both divisions begin algebra in the third form, and the amount of ground covered is somewhat proportional to the time devoted to it. The advantage, however, is distinctly in favor of the "modern" division, for the Latin division does little more than make a start. Nominally it reaches numerical equations of the first degree in one or two unknown quantities, but in so doing many of the subjects treated in our beginning algebras are passed over hastily or else are omitted altogether. The work of the other division is much more thorough. The plane geometry as covered by the two divisions does not differ widely, but the solid geometry of the "modern" division is not studied by the Latin pupils until the next cycle, and then only in a most perfunctory fashion. It does little else than familiarize the pupils with a few of the elementary definitions of the subject, and teaches them the application of the formulas for the surface and volume of the ordinary figures.

In natural science, both divisions cover the fields of zoölogy, botany, and geology, in that order. The course entitled zoölogy in Division B of the third form really treats of the physiology and hygiene of the human body, using its needs for nutrition and clothing as a point of departure for various digressions into the animal, vegetable, and mineral kingdoms. The Latin pupils have no physics or chemistry in the first cycle.

Methods in Mathematics.

If there is any one characteristic that stands out strongly in the French teaching of mathematics, that characteristic is thoroughness. Whether it is a little fellow that has just entered the sixth form or a young man in the highest form who is on the eve of his examination for the École Polytechnique, every one is held up to a rigid standard. The prevailing notion

throughout it all is not to correct the error after it is made, but rather to prevent it from being made, a decidedly sound pedagogical principle that more of our own teachers would do well to keep constantly before them. In order to attain this purpose, the French teacher keeps close control over the processes of the class room. It is a rare sight to see two pupils at the board at once. As a matter of fact, a larger number would be quite out of the question, for a blackboard six feet by four feet is a large board. The problem is given out, and the pupil goes to the board. Every step taken is in full sight and under the scrutiny of the rest of the class as well as the teacher, so there is small chance of anybody going very far astray. It is inevitable that the apparent progress should be slow, but it is this very deliberateness that makes possible the thoroughness which, in its turn, avoids the necessity of much repetition and saves time in the end. In the meantime, the rest of the class at their seats are working out the problem in their note books. These problems, together with the presentation of the advance work as given by the teacher, which likewise finds a place in the note book, provide the major part of the material for outside study. The endless round of interminable examples that are the bane of pupil and parent alike in our own schools finds no place in the French scheme of mathematical instruction. The following distribution of time that I found in one sixth form is representative of the prevailing custom: of the four hours of class work in mathematics, two were spent in teaching and recitation proper, one in the correction of the home task (*devoir*), and one in mechanical drawing. The teacher's estimate of the time spent outside the class room was: one hour on drawing, an hour and a half for the task, and half an hour apiece for the preparation of each of the other two lessons. This arrangement of two long and two short periods of preparation in mathematics is dovetailed in with a corresponding arrangement in other subjects so that the outside preparation for no one day makes any inordinate demand upon

the boy's strength. The home work on the so-called short days is merely a careful review of what was done in class at the preceding lesson, the driving home of the principles by practice being reserved for the weekly task. This total of three and a half hours per week for outside work is materially increased in the higher classes.

The choice of salient processes is another factor, with the thoroughness, in enabling the French teacher to make haste slowly. In the first cycle particularly, the official instructions afford him every opportunity to follow the order that seems best and to use the method he deems most feasible for the class in question. The requirements of the baccalaureate examination at the end of the second cycle naturally impose some restrictions on this freedom during the latter part of the course, but in the first part he is quite free to devote himself unhampered to the intellectual development of his pupils. In algebra, for example, the pupil, having already been introduced to some of the elementary algebraic conceptions in connection with the arithmetic of the sixth, fifth, and fourth forms, skips rapidly over much of the preliminary formal work that cumbers most of our own texts (even factoring being very hastily treated), and pushes forward to the solution of the equation. He is taught to regard algebra as a tool, and not as an end in itself. In a third form that I saw on December 27th, after having spent only two hours per week on algebra since the previous October, one of the examples for the day with the entire solution was as follows:[1]

$$\frac{x}{5} - \frac{3}{8} = 1 - \frac{2x+1}{7}$$
$$56x - 105 = 280 - 80x - 40$$
$$136x = 345$$
$$x = \frac{345}{136}$$

[1] In another lycée a few days later, I found the third form boys solving the following problem in three unknown quantities: "Find the number the sum of whose digits is 14; the digit in the hundreds place is equal to the sum of the other two; and 495 added to the number with the order of the digits reversed will give the original number."

The pupil called to the board worked rapidly and confidently, talking as he wrote, and soon reached the solution without unnecessary waste of time or figures. From the awkward fraction in the answer, it was perfectly evident that the equation had not been specially contrived so as to come out even, but there was no expression of surprise at the result. Another boy was called to the board to prove the answer, an operation requiring considerably more work than the original solution. Then the teacher urged them to look upon every equation as a problem, and finally with a little skilful guidance from him, the class worked out the translation of this particular problem as follows: "Find a number the fifth part of which if reduced by three-eighths would equal one, diminished by the seventh part of one more than twice the number." Yet with all this practical tendency, there is a goodly amount of theoretical work, as appeared later in the same recitation in discussing the question of equivalent equations.

Throughout the mathematics course one is impressed with the intimate relations existing among the various subjects. Arithmetic is not carried to a certain point, there to give way to algebra, in its turn, perhaps, to be supplemented by geometry, but from the fifth form in one division and from the fourth form in the other, at least two subjects are run conjointly. Some of the difficulties of algebra are thus already discounted by the elementary notions of the unknown quantity that have previously been encountered in the arithmetic. Geometry is especially emphasized in its numerical aspect, and in the Division B, the mechanical drawing is closely correlated with them all. The result is that the mathematics work appears as a single unified subject with several facets rather than as so many discrete studies of the school curriculum.

In the physical and the natural sciences (the former including both physics and chemistry), the work in the first cycle is unquestionably less satisfactory from the pupil's point of view, for he practically never gets into any closer

than visual relations with the phenomena he is studying. The teachers try to make their subjects as practical as possible, but without the assistance of student laboratory work, with the immense fields to cover, and with the merest modicum of time in which to do it, it is not surprising that pure memory plays such a large part in this elementary science work. One can expect little more than a formal catalogue of names when the teacher has a single period of fifty or at most fifty-five minutes in which to complete the study of the human nervous system begun at the previous lesson, and to present the essential characteristics of the five senses and their functions. The most skilful teacher in the world might justly hesitate to undertake such an herculean task as this. The responsibility for any shortcomings should be laid upon the program and not upon the unfortunate teacher. The work in this particular sixth form that I saw was profusely illustrated with charts hanging on the wall and sketches put on the board during the course of the lecture, but with the exception of an experiment intended to show the image of a candle flame inverted by a lens (the actual effect of which was so hazy that the boys practically had to take the teacher's word for the fact) and two simple experiments to show the persistency of the retinal image, the teacher confined himself exclusively to pictures of the organs and of the phenomena in question, never once bringing the class face to face with the reality itself. Practically every school that I visited had a well equipped natural history collection. The science teachers ordinarily draw liberally on these for specimens to carry to their class rooms, but so far as I could find out the pupils never had an opportunity to see the collection in its own room. That is reserved to delight the eyes of the professor in charge of the work or to excite the admiration of the casual visitor. The French point of view is perfectly clear. It is based upon the idea that these specimens can be most effectively studied only when isolated and considered in their proper places in the general develop-

Methods in Science.

ment of the subject, but it disregards completely the added interest and even inspiration that are likely to result from viewing the collection as a whole. Such a thing as pupils browsing freely about a museum of any sort is entirely foreign to the French conception of education.

The physics and chemistry of the first cycle are decidedly elementary, serving merely to introduce the pupils to the study of these sciences, and constantly emphasizing their practical application to the uses of modern life. There is no text-book employed, the teacher proceeding entirely by the demonstration-lecture method.

The following programs of the work of the second cycle will indicate the more advanced treatment of the scientific subjects:

SECOND FORM

MATHEMATICS, 2 hours, first semester. (Program common to Sections A and B.)

ALGEBRA. Exercises on equations of the first degree, and on the representation of the variations in the function $ax + b$.

SOLID GEOMETRY. The plane and the straight line in space. Dihedral angle. Definitions of polyhedral angles, pyramid, prism. Rules for surface and volume of the prism, pyramid, cylinder, cone, and sphere.

PHYSICS, 1 hour. (Program common to Sections A and B.) [The same general subjects as studied in the fourth form, Division B, a little less technically treated.]

GEOLOGY, 12 lectures of one hour each. (Program common to Sections A, B, C, and D.) Brief summary of present day phenomena: comparison with early phenomena. Paleozoic period: chief animal forms; partition of oceans and continents. Mesozoic period: reptiles, first birds and mammiferous animals; flowering plants; rocks. Tertiary period: mammiferous animals; discoveries of Cuvier; formation of mountain ranges. Quaternary period: glacial formations; man; volcanic phenomena of the tertiary and quaternary periods.

MATHEMATICS, 5 hours. (Program common to Sections C and D.)

ALGEBRA. [Practically the same topics as in the third form, Division B, with the addition of problems, inequalities of the first and second degrees, the derivative, arithmetical and geometrical progression. Theoretical discussions, especially in studying the progressions and exponents, begin to receive more and more attention.]

PLANE GEOMETRY. Line and surface: angles; triangles, kind, equality; locus; parallels; sum of the angles of a triangle; of a convex poly-

gon; parallelograms; symmetry; translation of a rigid plane figure. Circle: intersection of straight line and circle; tangent; arcs and chords; measure of angles; rotation about a point; translation. Proportional lengths: divide a line in a given ratio; similar triangles; harmonic pencil; bisectors of a triangle; locus; centers of similarity; similar polygons; sine, cosine, tangent, and cotangent of angles between zero and two right angles; fourth proportional; mean proportional; regular polygons; relation of circumference to diameter; calculation of π (using the perimeters of regular polygons). Area of polygons; of the circle; ratio of the areas of similar polygons; of two circles. Elementary principles of surveying.

PHYSICS and CHEMISTRY, 3 hours. (Program common to Sections C and D.)

PHYSICS. [The same general topics as in the fourth form, Division B, the extra time together with the assistance rendered by the earlier study making it possible to treat each topic more fully.]

CHEMISTRY. [The same observation applies here as in the physics above.]

SCIENCE LABORATORY, 2 hours. (Program common to Sections C and D.)

FIRST FORM

MATHEMATICS, 2 hours, second semester. (Program common to Sections A and B.)

ALGEBRA. Exercises on numerical equations of the first degree in one or more unknown quantities, and of the second degree in one unknown, graphic representation of the variations of x^2 and $\frac{1}{x}$.

GEOMETRY. Measure of angles. Similar plane figures. Definition of sine, cosine, and tangent of an angle between zero and two right angles. Metrical relations in the triangle and the circle. Areas of plane figures. Rules for finding surfaces and volumes of prisms, pyramids, cylinders, cones, and spheres.

PHYSICS, 1 hour. (Program common to Sections A and B.) [The same general subjects as studied in the third form, Division B, a little less technically treated.]

MATHEMATICS, 5 hours. (Program common to Sections C and D.)

GEOMETRY. Plane, and straight line; determination of a plane; parallelism and perpendicularity of lines and planes; dihedral angle; obliques to a plane; projection of a plane; area; translation; rotation; symmetry. Trihedral angles; similarity; polyhedrons; prisms; pyramid; symmetry of cubes; volume of parallelopiped, of prism, of pyramid, of frustum of a pyramid, of truncated, triangular prism. Circular cylinder and cones, sphere; area and volume of the foregoing. Tangent plane.

DESCRIPTIVE GEOMETRY. The point. Distance between two points. Intersecting and parallel lines. The plane. Rabattement on a hori-

zontal plane. Angle between two lines. Distance from a point to a line. Intersection of lines and planes. Application to shades and shadows. Distance from a point to a plane. Angle between a line and a plane, between two planes.

Representation of a point, a line, and a plane, by means of two planes of projection. Intersection of lines and planes. Parallel and perpendicular lines and planes. Rabattement. Practical applications.

TRIGONOMETRY. Trigonometric functions (sine, cosine, tangent, cotangent). $\frac{\pi}{4}$, $\frac{\pi}{3}$, etc. Theory of projections. Formula for $\sin 2a$, $\cos 2a$, $\tan 2a$. Rational expression of all trigonometric functions of the angle a in terms of $\tan \frac{a}{2}$. Given $\cos a = b$; to find value of $\sin \frac{a}{2}$ and $\cos \frac{a}{2}$. Similarly for $\tan \frac{a}{2}$. Sums or differences of the trigonometric functions of two angles in terms of products. Inverse problem. Express $a \cos(\omega t + \alpha) + b \cos(\omega t + \beta)$, where t is the only variable. Use of four or five place logarithmic tables. Solution of right triangles. Solution or discussion of simple trigonometric equations. Relations between the sides and angles of a triangle. Solution of triangles.

ALGEBRA. Equation and trinomial of the second degree. Derivatives of simple functions. Variation and graphical representation. Rectilinear movement, using derivatives. Velocity and acceleration. Uniformly accelerated motion. (Teachers should apply algebraic theory to numerous examples from algebra, trigonometry, and geometry.)

PHYSICS and CHEMISTRY, 3 hours. (Program common to Sections C and D.)

PHYSICS. [The same general topics as in the third form, Division B, the extra time together with the assistance rendered by the earlier study making it possible to treat each topic more fully.]

CHEMISTRY. [The same observation applies here as in the physics above.]

LABORATORY WORK, 2 hours. (Program common to Sections C and D.)

PHILOSOPHY FORM

MATHEMATICS, 2 hours. COSMOGRAPHY, 1 hour for one semester. (Program common to Sections A and B.)

MATHEMATICS. Review of positive and negative numbers. Development: $(a + b)^2$, $(a + b)^3$. Identity: $a^{n+1} - b^{n+1} = (a - b)(a^n + a^n b + \ldots + b^n)$. Geometrical algebra of the Greeks: a number represented by a line; a product by the surface of a rectangle; figures equivalent to the identities: $(a \pm b)^2 = a^2 \pm 2ab + b^2$, $\left(\frac{a+b}{2}\right)^2 - \left(\frac{a-b}{2}\right)^2 = ab$. Construction: square on the hypothenuse; rectangle having a given side and on given line equivalent to given rectangle;

rectangle equivalent to given square, knowing the sum and difference of its sides, followed by expressions of these sides. Solution of algebraic equation of the second degree, with application to the preceding problem; comparison of the results. Advantages of the modern notation, particularly of positive and negative numbers.

Determination of a point in a plane, given two numbers; inverse representation. Co-ordinates; latitude and longitude. Graphic representation of variation of phenomena with a single variable; curves of temperature, pressure; application to statistics. Functions; graphic representation of:

$$y = ax;\ y = ax + b;\ y = x^2;\ y = x^3;\ y = \frac{1}{x}.$$

Construction of straight line defined by a numerical equation of the first degree in x and y; slope of the line. Co-ordinate paper. Solution of two numerical equations of the first degree in two unknowns by intersection of two straight lines; of numerical equations of the form:

$$x^2 + px + q = 0,\ x^3 + px + q = 0$$

by the intersection of curves whose equations are:

$$y = x^2,\ y = x^3,$$

with the straight line whose equation is $y + px + q = 0$. Plots of empirical railway tables. Curves drawn by self-registering machines. Construction of simple curves defined geometrically; their equations.

Tangent and derivative. Tangent obtained geometrically as limit of a secant (circle, parabola). Slope of tangent; application to simple cases:

$$y = x^2,\ y = x^3,\ y = \frac{1}{x}.$$

Derivative in its relation to the variation of a function.

Approximate area of curve by plotting and counting squares; control of error. Area of triangle as common limit of sums of the areas of two sets of rectangles. Function with a given derivative. Area of parabola. Area of triangle or parabola by obtaining the function whose derivative is ax or ax^2.

Application of infinitesimal method to evaluating volumes or surfaces of bodies in elementary geometry.

COSMOGRAPHY, 1 hour for a semester. Copernican system. The sun: size, distance, constitution, rotation, spots. Planets. Earth: form, dimensions, rotation, poles, equator, meridians, parallels, longitude, latitude. Moon: movement, constitution. Comets; shooting stars; aerolites. Stars, nebulæ, milky way.

PHYSICS and CHEMISTRY, 3 hours. (Program common to Sections A and B.)

PHYSICS. [The topics of Division A of the second and first forms are here treated again, this time with more attention to their application: *e. g.*, the principle of the pendulum as applied to the clock; conservation and dissipation of energy; Gramme machine; telephone; microphone;

cathode and X-rays. Periodic movements with longitudinal and transverse vibrations, waves, and interference introduce a new topic. Sound and optics are more fully treated. Under the former are included: the phonograph; velocity of sound; music; physiological qualities and the physical interpretation of musical sounds; vibrating chords (laws); harmonics; and resonators. Under the latter are treated: analogies between light and sound; hypothesis of light vibrations; radiation from ultra-red to ultra-violet rays; phosphorescence and fluorescence.]

CHEMISTRY. [Except for the oxide and sulphide ores, some of the less important alloys, aluminum, porcelain, and glass, this program is identical with that of Division B in the fourth and third forms above.]

NATURAL SCIENCE, 2 hours. (Program common to Philosophy A and B, and to Mathematics A and B.[1])

ANIMAL AND VEGETABLE ANATOMY AND PHYSIOLOGY. Life phenomena common to the two kingdoms. Elements of living things, multiplication, nutrition.

ANIMAL ANATOMY AND PHYSIOLOGY. Tissues. Type organizations of animal kingdom. Man; nutrition; digestion; circulation; absorption; respiration; animal heat; elimination of waste. Nervous system. Sense organs. Locomotion. Larynx and voice.

PALEONTOLOGY, at least five lessons of one hour. General idea of configuration of land and sea during the paleozoic, mesozoic, and tertiary periods. Animals of paleozoic, of mesozoic, of tertiary, and of quaternary periods. Evolution of mammiferous animals. History of the horse. Man.

VEGETABLE ANATOMY AND PHYSIOLOGY. Typical forms of the vegetable kingdom. Physiology of phanerogams. Nutrition: root, stalk, leaf. Nitrification. Respiration. Parasitic plants. Reproduction: flower; fertilization and development; fruit and seeds. Germination. Reproduction of cryptogams and phanerogams. Vegetable evolution.

HYGIENE, 12 lectures of one hour. (Program common to Philosophy A and B, and to Mathematics A and B.)

Water: spring, river, well, drinkable; contamination; purification. Air: amount necessary for health; renewal; ventilation; contamination and change. Nourishment: meat, wholesome, decayed; parasites introduced into human body. Alcoholic beverages:[2] fermented, distilled, cordials; effects. Drunkenness and alcoholism. Exercise: under and over exercise. Principal contagious and infectious diseases: propagation. Transmission through excrement or expectoration: typhoid, cholera, tuberculosis. Receptivity and immunity; resistance; varioloid and vaccine; revaccination; inoculation against anthrax, hydrophobia, diphtheria. The dwelling: salubrity of the house; aeration; isolation of the soil; the sanitary and unsanitary house. Domestic animals: transmitters of disease; their sanitation.

[1] For laboratory work, required of all sections, see under Science Laboratory for the mathematics form, p. 280.

[2] At least one lesson shall be devoted to the consideration of alcoholic drinks.

MATHEMATICS FORM

MATHEMATICS, 8 hours. (Program common to Sections A and B.)

ARITHMETIC. [General view of arithmetic, including measure of magnitude (demonstrate: the ratio of two magnitudes of the same kind is equal to the quotient of their numerical measures).] Determination of the upper limit of the error of a sum, difference, product, or a quotient, when given the upper limit of the errors of the constituent quantities.

ALGEBRA. [General review of algebra previously covered without developing the theory of imaginaries.] Variations and graphical representation of the functions:

$$y = ax + b;\quad y = \frac{ax + b}{a'x + b'};\quad y = ax^2 + bx + c;\quad y = ax^4 + bx^2 + c.$$

Derivative of a sum, product, quotient, of the square root of a function, of $\sin x$, $\cos x$, $\tan x$, $\cot x$. Application of the study of variation to finding the maxima and minima of certain simple functions, especially those of the form:

$$\frac{ax^2 + bx + c}{a'x^2 + b'x + c'};\quad x^3 + px + q,$$

with numerical coefficients.

Derivation of the area of a curve regarded as a function of the abscissa. (The teacher is to avoid undue rigor and freely appeal to geometric intuition in discussing derivatives.)

TRIGONOMETRY. Trigonometric functions. Addition and subtraction of arcs. Multiplication and division by 2. Solution of triangles. Applications of trigonometry. (No reference to the construction of trigonometric tables.)

GEOMETRY. Fundamental conclusions of plane and solid geometry. Power of a point with respect to the circle and the sphere. Radical axes and planes. Polar of a point with respect to the circle. Polar plane of a point with respect to the sphere. Inversion. Applications. Peaucellier's cell. Stereographic projection.

Vectors. Projection of a vector. Geometric addition. Linear moment with regard to a point. Moment with regard to an axis. Application to couples.

Perspective. Of a point, straight line, curve. Vanishing point of a line. Perspective of two parallel lines. Vanishing line of a plane. Conception of the line at infinity.

CONIC SECTIONS. Ellipse: construction; tangent, problems; equation of ellipse with reference to its axes; considered as projection of a circle. Intersection of ellipse and straight line. Hyperbola: construction; tangent, problems; asymptotes; equation of hyperbola with reference to its axes. Parabola: construction; tangent, problems; equation of parabola with reference to its axis and the tangent at the vertex. Common definition of these curves by means of focus and directrix. Plane sections of cone or cylinder of revolution.

DESCRIPTIVE GEOMETRY. Angles between planes and straight lines. Distances between points, lines, and planes.

Projection of a circle. Sphere; plane section, intersection with a straight line. Circular cone and cylinder; tangent plane passing through a point, or parallel to a line; shadows; plane sections. Circumscribed cones and cylinders; shadows.

Representation of a surface by contour lines. Co-ordinate of a point on surface whose horizontal projection is given. Slope of a line drawn on a surface. Lines of equal slope; of greatest slope. Topographic maps.

Planimetry and levelling. Conventional markings and colorings. Map reading; use in the field.

KINEMATICS. Units of length and time. Motion. Trajectory of point. Rectilinear motion; uniform motion; velocity of a vector. Variable motion; mean velocity; velocity at an instant. Acceleration; acceleration at an instant, a vector; mean acceleration. Uniformly accelerated motion. Curvilinear motion. Resolved velocities. Hodograph.

Uniform circular motion; harmonic motion. Composition of velocities. Applications. Translation and rotation about an axis of a rigid body. Helicoidal motion. Simple machines.

DYNAMICS AND STATICS. Of a particle. Inertia; force; mass; resultant. Equilibrium of a particle, free, on a curve, on a surface, on a friction plane. Vertical and parabolic movement of a particle. Sliding friction. Work; unit of work; work of a constant, and a variable force; virtual work; total work; indicator diagrams; energy.

Of a rigid body. Parallel forces; center of gravity; examples. Couples. Resultant of a system of forces. Conditions of equilibrium of a rigid body. Equilibrium of a rigid body turning about a fixed axis, about a point.

Of simple machines. Relation between power and resistance. Theorem of *vis viva*. Friction. Efficiency. Fly wheels, and brakes.

COSMOGRAPHY. Celestial sphere: zenith; theodolite; laws of diurnal movement; meridian; pole; sidereal day; right ascension and declination. Earth: geographical co-ordinates; dimensions and relief of the earth; world maps; charts. Sun: apparent movement along the ecliptic; inequality of days and nights in various latitudes; seasons; tropical and sidereal year; sidereal time; mean time; civil time. Julian and Gregorian calendars. Moon: apparent movement; phases; rotation; variation in apparent diameter. Lunar and solar eclipses. Planets: Copernican system; Kepler's and Newton's laws. Distance, dimension, physical constitution of the sun, planets, and their satellites. Comets; meteors; meteorites. Stars; constellations. Nebulae. Milky Way.

PHYSICS AND CHEMISTRY, 5 hours. (Program common to Sections A and B.)

PHYSICS. [The program is very similar to that in the philosophy form, save that the topics are taken up a little more technically, and with greater emphasis upon their applications in the fields of mechanics and electricity.]

CHEMISTRY. General principles of chemical combinations. Qualitative analysis. Review of the characteristics of the elements and compounds so as to recognize their existence in chemical combinations. Quantitative and volumetric analysis. Quantitative chemistry. Symbols; formulæ. Molecules: determination of molecular weights. Atoms: determination of atomic weights. Valence. Acids, bases, and salts. Alkaline metals and alkaline earths; ordinary compounds. Iron: iron sulphate. Zinc: zinc sulphate. Lead: red lead, white lead. Copper: sulphate of copper. Mercury: chlorate of mercury. Classification of the metalloids. Distinctive characteristics of: oxides, sulphides, the principal kinds of salts (chlorides, carbonates, sulphates, nitrates). Chemical equilibrium (experimental). Dissociation. Berthollet's laws. Heat of combination. Thermo-chemistry.

ORGANIC CHEMISTRY. Principles of organic analysis. Synthesis. Graphic formulæ. Functions in organic chemistry. Hydro-carbons. Halogens. Ethyl alcohol. Ether. Aldehyde. Acetic acid; ether salts; urates. Cyanogen. Glycerine, oxalic acid, lactic acid. Benzines. Phenol; aniline. Nitrogenous substances. Albumen.

NATURAL SCIENCE, 2 hours. Same program as in the Philosophy form.

SCIENCE LABORATORY, 2 hours. Physics, Chemistry, Natural Science. (Program common to Mathematics A and B.)

In the mathematics form, a certain number of laboratory exercises will review the most important topics of the second and first forms. Five or six of these will be set apart for natural science. These will be common to the four sections of the philosophy and mathematics forms.

HYGIENE, 12 lectures of one hour. Same program as in the philosophy form.

Mathematics and Science in the Higher Forms.

Until 1904, the programs in the graduate classes known as the special mathematics form were more or less confused. The entrance examinations for the *École Polytechnique* required certain things that were not demanded by the *École Centrale* and *vice versa*. While this diversity caused no particular inconvenience for the Paris schools where the classes were large enough to have special sections for each of the various government engineering schools, it was decidedly awkward for the provincial lycées where the classes were considerably smaller. In accordance with the report of a special commission appointed for that purpose, the program of these graduate classes was revised so as to obviate most of these difficulties. Now the requirements for these schools present no very great variation, so that a pupil who has failed in the

competition for one can readily present himself for another without any material loss of time. The reforms tend in general toward minimizing the emphasis upon pure theory, the teachers being specifically urged not to give any theory without making numerous applications, choosing them preferably from those which will be encountered later in the fields of physics and mechanics. Analytic geometry has consequently been considerably simplified, and mathematical analysis correspondingly developed. The program includes a more exhaustive study of the subjects of the ordinary mathematics form: advanced algebra, trigonometry, plane and solid analytical geometry, mechanics, descriptive geometry, physics, and chemistry.

Method and Scope of the Mathematics Course.

The general method of procedure in mathematics instruction in the upper classes does not differ materially from that already described for the first cycle. A mere casual study of the detailed program will show that it still follows the concentric circle plan, the work of each succeeding class gradually broadening the field already covered. In Sections C and D of the second and first forms, we find for the first time courses in plane geometry, solid geometry, and trigonometry that resemble very closely the corresponding courses in our American high schools, whereas in the preceding and in succeeding forms, these same subjects are treated respectively in a more elementary and a more advanced fashion. The greater freedom accorded the teachers under the present conditions results in more or less diversity in topical sequence, a diversity materially enhanced by the prevailing concentric circle plan of instruction. In the main the teachers adhere reasonably closely to the order of topics of the official program, yet from time to time one finds original spirits venturesome enough to depart from this very radically. If their plans succeed and their pupils stand the test, they receive official support and naturally make more rapid progress toward a Paris appointment. On the other hand, the results are correspondingly disastrous in case of

failure. I found one teacher in the mathematics form distributing his work in the following intensive fashion, concentrating all the eight hours per week on a single subject from the beginning of the year practically until the beginning of the general review at Pentecost: October, geometry; November and December, algebra; January, kinematics of the point; first half of February, conic sections; last half of February and first half of March, kinematics of a rigid body, machines; from the middle of March until the Easter vacation, descriptive geometry; May, cosmography, and finally arithmetic. Trigonometry monopolized the attention at no particular period, but was brought in from time to time as the occasion required. This by no means indicates that it was neglected. On the contrary it seems fairly to permeate the whole program, and it is utilized in some form or other in the great majority of the problems in the mathematics examinations. The above plan of work also shows roughly the relative amount of time devoted to each of the various branches, algebra receiving approximately two months, mechanics a month and a half, arithmetic, geometry, and descriptive geometry, a month each, and conic sections and cosmography a half a month each, the rest of the year being given over to review. This particular teacher spent a period or two a week on the general review from Easter to Pentecost. From this latter date, which in 1908 came at the end of the first week in June, the time was exclusively devoted to reviewing the work of the year. To some this may seem a disproportionate amount of time for review, amounting as it does to nearly a fifth of the actual school year, but it is typical of French educational practice generally, showing unmistakably the importance attached to this phase of instruction, and it goes a long way toward guaranteeing not only that the pupils know thoroughly the work they have been over, but furthermore that they shall have that knowledge where it is readily available. By the end of the regular course for the baccalaureate, the French science student has advanced about as far as has his American cousin at the

completion of the freshman year in our best technical schools. The instruction in the following special mathematics form which prepares for the government scientific schools carries one considerably farther than that, and is quite on a par with that given in the science faculties of the universities. Throughout it all one is constantly impressed with the prevailing unity that has been already noted more than once. The teacher is not teaching algebra, or geometry, or trigonometry, but he is teaching mathematics, these various branches being mere subdivisions of the general science, and invariably subordinate to it.

Methods in Science Instruction.

The science course in Sections C and D is considerably vitalized by the introduction of laboratory work, although the other two sections are still handicapped by the more formal nature of the instruction in the lower forms, thereby suggesting that some of the more practical of Rousseau's educational ideas are still imperfectly appreciated by his own countrymen. The failure to apply at least a part of this science instruction to the practical affairs of life was very forcibly brought to my attention. The program of the lectures in hygiene requires the teacher to discuss the subject of fresh air, the necessity of ventilation, and the dangers from contamination, yet in the great majority of the class rooms I visited the air was atrociously bad, and in but few cases did the teacher make any effort to improve it. One is justified in questioning how effective the lecture method ever is, as far as practical results are concerned.

The science lectures in general are supplemented by practical demonstrations of the principles involved, though in all the class work that I saw in optics, these were restricted to diagrammatic sketches put on the board by the teacher. In Sections C and D this particular lack is partially compensated for by the laboratory experiments which involve a few of the more fundamental principles of light. The effects of the lecture room demonstrations of the teacher were partially vitiated by the fact that the pupils were quite content to take

his statement of the progress of the experiment and seemed to evince little inclination to verify this from their own observation. As far as my own experience goes, science in the French secondary schools is an informational rather than an observational study. In the words of the official instructions: "The aim is not to make professional physicists of our pupils, but to acquaint them with the great laws of nature and to put them in position to understand what is going on in the world about them."[1] The former is obviously the dominant aim, especially in the so-called letters sections. The laboratory work in physics and chemistry in Sections C and D presents a slightly different phase of the question, although even here there is no intention of beginning the practical training of independent investigators. Since it serves primarily to impress and reinforce the principles already encountered in the lecture room, it is rare for the pupils to have a problem even in chemistry, that has not been already worked out and demonstrated in the lecture room. This probably accounts for the general satisfaction among science teachers themselves with the time allotment for experimental work. Most of them would like more time for lecture work, but nobody that I met found the laboratory exercises relatively undervalued.

Laboratory Equipment.

The equipment for science teaching is on the whole remarkably complete. Although the amount of apparatus naturally varies from school to school, I failed to find a single school that did not seem adequately supplied, and in several instances the laboratories represented an expenditure of thousands of dollars. The magnificent science equipment at the Collège Rollin in Paris, a secondary school supported at municipal expense, is certainly superior to that at many an American college. The physics and chemistry departments at that school receive 3,500 francs for annual expenses other than salaries. The major part of this being devoted to physics, the professor in

[1] *Conseils généraux*, in *Plan d'études et programmes d'enseignement dans les lycées et collèges de garçons*, 1907–8, p. 119.

charge of the work has been able to provide a small but very complete equipment for student laboratory work. In the particular second form that I had the good fortune to visit, there were twenty boys working in pairs. In order to economize expenses for sets of apparatus, the teacher had arranged his work so that five different experiments, naturally bearing upon as many phases of the same general subject, should go on simultaneously. At the end of five weeks, there being only one laboratory period per week, each pupil will have performed all the five experiments, and then a new series is given out. This school was particularly fortunate in having besides a number of small rooms for experiments in light and other subjects where isolation is desirable. In nearly every other school that I saw, the pupils have to perform their experiments in physics in the chemical laboratory. The fact that laboratory work in physics was introduced for the first time in the program of 1902, accounts for this apparent partiality for chemistry. Many of the science teachers have been able to find among the numerous domestics attached to their schools some with a decidedly mechanical turn of mind, and they have drawn upon this source of supply for assistance in the construction and repair of physics apparatus. In some schools one such domestic devotes all his time to this work. Thus ingenious and ambitious teachers that were not fortunate enough to be placed at a Collège Rollin have been enabled to supply their laboratories with many sets of simple and inexpensive apparatus, accurate enough for all practical purposes.

The student chemical laboratories with their less expensive apparatus are better equipped than those for teaching experimental physics. Many of the chemical laboratories are really excellent, considerably superior, in fact, to the character of the work done in them. No chemicals are ever kept at the pupils' benches. These are all brought in by a domestic from the teacher's laboratory, the apparatus and supplies for each pair of pupils being on a separate tray. These various

Laboratory Work in Chemistry.

outfits have all been previously assembled by the laboratory assistant for each successive class. When the pupils reach the laboratory, everything that they use for the experiment of the day is on the desk before them, and when the hour is over they have simply to leave the material where they found it. They thus have no more responsibility for getting their supplies together nor of clearing up their apparatus before they leave than if they were sitting down to dinner. At the beginning of each laboratory period the teacher gives careful directions for the experiment of the day. The pupil thus knows exactly what to do, when to do it, how to do it, and generally what results he should obtain. When this is done and the results written in his note book (with fair luck the good pupils can complete their work in half or three quarters of the period), he can devote the remainder of the time to annoying his neighbor. If for any reason the experiment is not finished by the end of the hour, the whole time is practically lost, for there is no provision for completing or making up the work. Indeed why should there be, since the experiment is merely confirmatory of what he already knows? The lack of aprons or other special laboratory dress, the absence of responsibility put upon the pupils, the mere confirmatory character of the work, all tend to engender the idea that this is a kind of playing at experimentation, rather than serious laboratory work. Even among some boys that I saw who were in the middle of their third year in the laboratory (to be sure they had spent only one hour per week on chemistry), the general lack of "at homeness" in handling apparatus was strikingly apparent.

Yet when all these criticisms have been passed on the formal nature of science teaching, the emphasis upon memory, the lack of student responsibility, the mediocrity of the laboratory work, this very system has produced results; whether despite or on account of the system, scientists have nevertheless been produced. Witness the long line of illustrious names from Descartes down to Pasteur, a group of men that puts France second to

Results.

no other nation, men that have not only vitally contributed to the world's store of knowledge of fundamental scientific principles, but that have applied these principles to the expansion of the field of human endeavor, to the alleviation of human suffering, and to the elevation of the human race.

CHAPTER XIII

OTHER SUBJECTS OF INSTRUCTION

Philosophy, Morale, Law, Drawing, and Gymnastics

In order to complete the topics under the various subjects of instruction in the secondary school curriculum, it will be necessary to bring together in this chapter a rather fragmentary discussion of several subjects that do not readily fall under any of the great heads already treated. Such are philosophy, elementary ethics, common law, gymnastics, and drawing, all except the last two appearing for a very limited time in the course of study.

Philosophy

Philosophy was originally essentially a subject of higher learning. The failure to differentiate clearly between higher and secondary education that characterized French education for centuries, a haziness that still lingers in the frequent inclusion of the lycées and colleges in the university system and that renders the mutation from the teaching staff of the lycée to that of the university proper a matter of no very great difficulty, facilitated the settling down of philosophy into the curriculum of the secondary schools, especially since these very schools assumed the function of providing a complete liberal education. Philosophy as the crowning study of mediæval scholarship thus found a sympathetic welcome in the lower institutions of learning. The philosophy of the Jesuit colleges, reaching as it did only a comparatively small portion of their students, for the great majority of them left at the end of the rhetoric form, was still further circumscribed by

Philosophy before the Revolution.

the extremely narrow scope of its field. Not only was it restricted to Aristotle, but it did not include all of that author, and even then placed interpretation of the words on a par with that of the subject matter.[1] Thus the logic of the first year of the philosophy course and the metaphysics of the third become considerably attenuated in the light of the accompanying directions. Although Descartes published his *Discours sur la méthode* in 1636, it was not until after the opening of the eighteenth century that Cartesianism really made any appreciable headway even in the university colleges. The temper of the time is reflected in the projected reform of the Statutes of the Faculty of Arts in 1720, wherein Descartes, who a quarter of a century before had been proscribed in the schools, appears side by side with Aristotle among the classic texts.[2] Although Rollin reproached himself for having studied philosophy only superficially, he accorded it but faint praise in recognizing the advantages accruing from its study and in almost the same breath contrasting the "arid, rough, and thorny region" of philosophy with the "gladsome, gay, and flowery land of the belles-lettres,"[3] a point of view not at all surprising when one recalls that Rollin himself was a rhetorician rather than a philosopher. Philosophy with him, as heretofore, included not only the whole round of scientific knowledge of the learned, but even what he was pleased to call "physics for children,"[4] an approach to our nature study of to-day. In the last years of the old régime, despite Rousseau's attempt to differentiate the physical sciences from their foster parent, philosophy still included the time-honored four-fold division of logic, metaphysics, ethics, and physics. The course which extended over two years and represented the real

[1] *Ratio atque institutio studiorum*, ed. 1603, p. 87.

[2] *Reformatio statutorum celeberrimae artium facultatis universitatis studii Parisiensis, caput* III., xxii., in JOURDAIN, *Histoire de l'Université de Paris, Pièces justificatives*, p. 173.

[3] ROLLIN, *Traité des études*, III., pp. 160, 173.

[4] *Ibid.*, p. 204.

work of the Faculty of Arts of the University[1] continued to be given in Latin.

Philosophy a Subject of Secondary Instruction.

With Napoleon's organization of the University, philosophy became definitely attached to secondary instruction, although in those classes it was treated in an elementary fashion which by no means tended to diminish its importance as a subject of higher instruction, and the trend toward a cleavage between philosophy and science that had appeared in nearly every proposed program since the beginning of the Revolutionary period was recognized as an accomplished fact. Save for a few months during the year 1821, and again for a brief period from 1847 when special conditions were made applicable to the Paris schools alone, the philosophy course has been restricted to a single year, since 1830 the instruction being given exclusively in the mother tongue.

Philosophy has been relatively little affected by the new program of 1902. It still occupies eight hours a week during the first semester and nine hours during the second, thus consuming about one third of the student's time in the philosophy form. In the mathematics form, it is relatively almost insignificant, for it is allotted only three hours per week throughout the year, apportioned evenly between moral philosophy and philosophy as applied to science. The following paragraphs will show something of the scope of this philosophy program:

PHILOSOPHY AND PHILOSOPHICAL AUTHORS

8 hours, first semester; 9 hours, second semester. (Program common to Sections A and B.)

I. PHILOSOPHY[2]

INTRODUCTION. Object and divisions of philosophy.

PSYCHOLOGY. Real characteristics of psychological facts. Conscience.

[1] ROLLAND, *Plan d'éducation*, p. 114.

[2] The accompanying order imposes no restrictions upon the teacher. It is sufficient that he treat all the questions indicated.

INTELLECTUAL LIFE. The phenomena of consciousness. Sensa Images. Memory and association. Attention and reflection. Formation of abstract and general notions. Judgment and reasoning. Creative activity of the mind. Relation of language and thought. Development and rôle of rational principles. Formation of the idea of extension. Perception of the external world.

Philosophy in the Philosophy Form.

EMOTIONAL AND IMPULSIVE LIFE. Pleasure and pain. Emotions and passions. Sympathy and imitation. Tendencies. Instincts. Habit. The will and the character. Freedom.

CONCLUSION. Mind and body. Psychic automatism. Personality; idea of self.

ÆSTHETICS. Summary notions of beauty and art.

LOGIC. FORMAL LOGIC. Terms. Proposition. Forms of reasoning. SCIENCE. Classification and hierarchy of the sciences. METHOD OF MATHEMATICAL SCIENCE. Definitions, axioms, and postulates. Demonstration. METHOD OF NATURAL SCIENCE. Experiment; observation and experimentation. Hypothesis; theories. Induction and deduction in natural science. Classification. METHOD OF MORAL AND SOCIAL SCIENCE. Processes of psychology. History and social science.

ETHICS.[1] Object and character of ethics. The phenomena of moral consciousness; obligation and sanction. Motives of conduct and the end of human life. Pleasure, feeling, reason. Personal and general interest. Duty and happiness. Individual perfection and the progress of humanity. PERSONAL ETHICS. Feeling of responsibility. Virtue and vice. Personal dignity and moral autonomy. DOMESTIC ETHICS. Ethical constitution and social rôle of the family. Authority in the family. SOCIAL ETHICS. Equity. Justice and charity. Co-operation. Rights; respect of life and personal liberty; property and labor; freedom of thought. CIVIC AND POLITICAL ETHICS. The nation and the law. The country. The State and its functions. Democracy; civil and political liberty.

METAPHYSICS. Value and limits of knowledge. Problems of early philosophy; matter; the soul; God. Relations of metaphysics to science and ethics.

II. PHILOSOPHICAL AUTHORS[2]

Xenophon, *Memorabilia*, one book.
Plato, *Phædo*, *Gorgias*, one book of the *Republic*.
Aristotle, one book of the *Nicomachean ethics*, and one of the *Politics*.

[1] In the treatment of personal as well as social ethics, the teacher will emphasize the danger of alcoholism and its moral and social effects: moral degradation, race weakness, misery, suicide, criminality.

[2] The teacher will choose four texts from this list. These will be discussed in class and will serve as a basis for expounding the systems of philosophy which they represent.

Epictetus, *Manual.*
Marcus Aurelius.
Lucretius, *De natura rerum*, Book II. or V.
Seneca, Extracts from the *Letters to Lucilius* and the *Essays.*
Cicero, *De officiis.*
Bacon, *On the advancement of learning.*
Descartes, *Discourse on method; Meditations; Principles*, Book I.
Pascal, *Thoughts*, and minor works.
Malebranche, *On the search for the truth*, Book I. or II. *Talks on metaphysics.*
Spinoza, *Ethics*, one book.
Leibnitz, *New essays*, introduction and Book I. *Theodicy*, extracts. *Monadology. Discourse on metaphysics.*
Hume, *Treatise of human nature*, one book.
Condillac, *The sensations*, Book I.
Montesquieu, *Spirit of the laws*, Book I.
Rousseau, *Social contract*, one book.
Kant, *Foundations of the metaphysics of ethics. Prolegomena.*
Jouffroy, Extracts.
A. Comte, *Course of positive philosophy*, lectures I and II. *Discourse on positivism.*
Cl. Bernard, *Introduction to the study of experimental medicine*, part I.
Stuart Mill, *Logic*, Book VI. *Utilitarianism. Liberty.*
Spencer, *First principles*, part I. *Introduction to sociology.*
Locke, *Essay on the human understanding*, Book I.
Cournot, *Materialism. Vitalism. Rationalism.*

Philosophy in the Mathematics Form.

The course in the two sections of the mathematics form, three hours per week, is divided into two parts entitled respectively *Elements of scientific philosophy* and *Elements of moral philosophy.* With the exception of an introductory paragraph for each they are identical with the work under *Logic* and *Ethics* of the philosophy form.

Philosophy in the Curriculum.

It is the presence of this philosophy instruction that most strikingly differentiates the curriculum of the secondary schools in France from those of the other great nations. It owes its introduction primarily to the absence of any clearly defined rift between the fields of secondary and higher learning. It owes its continuance in large measure to the peculiar function the secondary school performs in the intellectual life of the

country, namely, that of providing not an introduction to, or preparation for, liberal culture, but that of supplying that liberal culture itself. The Polytechnic School, the Military School at Saint-Cyr, the Higher Normal School, the medical schools, the law schools, — none of these can be considered as schools of general culture; they are essentially professional schools. It is even reasonably certain that many of the students of the arts and the science faculties are following purely professional courses. Of the thirty-four thousand native men students enrolled under the various faculties and in the other medical and pharmaceutical schools on January 15, 1908, only nine thousand, or slightly more than a quarter, were found in the arts and the science faculties,[1] and when account is taken of the students in the professional engineering schools of various sorts, this proportion is relatively decreased. In other words, for more than three quarters of its pupils, the lycée provides the only liberal culture. There are no official figures available for determining this proportion accurately, but it is certainly not an overstatement of the case, for it has made no allowance for the number of young men who quit school entirely on obtaining their bachelor's degree. With this view of the rôle played by the secondary school in the educational scheme, the presence of philosophy in its curriculum is amply justified. Absorbing as it does in the philosophy form a great part of the time and the thought of the student, it has an opportunity to unify, to synthesize in his mind, the instruction of the previous years. Whether or not it embraces this opportunity is largely dependent on the teacher. I have seen some very good teaching, and I have seen some very bad teaching, that is, from the pupils' point of view. In other words, some teachers treated the subjects in a most abstract fashion, apparently unmindful of the difference in intellectual power between themselves and their pupils. In such classes, a small number would grasp the significance of the discussion, a few more would

[1] *Bull. adm.*, 1908, I., p. 423.

strive with evident effort to follow, while the great majority would sit quietly by, nonchalantly awaiting the summary of the discussion which they could memorize for next time. On the other hand, I came across other teachers that, by aptness of illustration, by the practical application to the affairs of every-day life, succeeded in arousing an eagerness and interest in discussion that augured well for the general grasp on the subject.

Psychology in the Philosophy Form.

As the detailed program will show, the psychology is entirely of the older static or analytical type, experimental psychology, except so far as it may be touched upon in the lectures of the teachers, having no place in the course. It seems to be the general feeling that the whole field must be fairly well in hand before any experimentation is feasible. One seldom finds a text-book in the hands of the pupils, and then it is used only as a reference book. The following questions that formed the review work in one class I visited will convey some notion of the sequence of topics and the general method of questioning: (1) "Discuss perception." The first boy called upon had evidently done nothing more than memorize the analytical summary given at the end of the last hour. He recited very glibly the schematic outline with its divisions into the physical, physiological, and mental aspects, but that represented the extent of his knowledge. The next boy called up had a good grasp of the subject and gave a very creditable recitation. (2) "Explain Fechner's law." (3) "Discuss the threshold of sensation." (4) "Analyze the sensations." The influence of the memory was again strikingly apparent in response to the third question above, for the numerical measures of the threshold of sensation for touch on the tongue, the fore finger, and the back were strongly emphasized. It was the 1 mm., the 2 mm., and the 69 mm., rather than the significance of these differences that seemed to have made the deepest impression on the pupil's mind. Although only five boys were called upon, this review of the lecture of the previous day consumed nearly

forty minutes of the first hour. It was essentially almost a personal matter between the teacher and the pupil reciting, for the others were chiefly occupied in reading over their own notes, and the first boy that had failed so signally set about preparing a lesson in some other subject. At this point, the topic for the written paper to be handed in five days later, "The psychology of desire," was assigned, and with the careful preparation that characterizes all French instruction, the teacher threw out numerous helpful suggestions for the proper handling of the subject. A process of this sort not only reduces to a minimum the chance of getting a worthless paper, but it saves the average pupil much profitless groping about for a method of attack and thus represents the highest type of teaching. The remainder of the first hour, and, after a five-minute intermission, the whole of the second hour were given up to a further consideration of perception and its relation to sensation. The teacher was an unusually clear lecturer and he stirred up a lively discussion, unfortunately confined to only three or four out of the fifty boys in the class, when he broached the subject of the dreaming and the waking life.

In view of the extreme freedom granted the teachers of philosophy, it is rather presumptuous to attempt to give any standard arrangement of the work. Here is a scheme that is followed by one of the teachers in a Paris lycée, which is fairly representative of what one would find in the better schools: October, general introduction to the philosophy course; November, December, and January, psychology; February and the first half of March, logic; from the middle of March to the middle of April, metaphysics; May and June, ethics. This covers four periods of two hours each per week, three of them being devoted to lectures and recitations, and the fourth to correction and discussion of the written papers. During the second half year, there is an additional hour per week devoted to an exposition and discussion of the philosophic authors of the program. There is no attempt to give any connected history of philosophy, but

merely to interpret the particular philosophical doctrines of the authors in question. The teacher contrived to set apart an additional half hour per week during the first half year for this same purpose. Descarte's *Discourse on method* is always taken up by this particular teacher during the first semester, the authors of the second semester varying from year to year. This year the others were Comte, Montesquieu, and Aristotle.

Class in Philosophy. Mathematics Form.

The philosophy course in the mathematics form is considerably more limited in scope having only three hours per week as opposed to eight and a half in the letters sections. Here psychology and the philosophical doctrines are omitted, the time being shared by logic and ethics, the former with particular reference to its bearing on the special scientific work the pupils are doing. In one class that I visited, the subject was "The philosophical basis of biology," the teacher showing the evolution of the present day biology from the old natural history, and bringing out clearly the advances in modern method. The class was extremely wide-awake, the exercise at times assuming the form of an open discussion rather than a lecture. In touching upon the general biological theory toward the latter part of the hour, the controversy became more animated, one pupil rather insisting upon an answer to his question as to whether an evolutionist was a "believer" or not. The teacher avoided a direct reply for some time with many protestations that he was not competent to answer the question categorically, but finally said he saw no reason why the two positions need be at variance. In response to my mild expression of surprise after the class at the quasi-theological aspect the discussion had assumed, especially in view of the somewhat delicate state of the religious question in France at the moment, he replied that the French students were particularly fond of turning these discussions either toward religion or politics, and so long as they did not touch upon dangerous ground he for one saw no harm in it.

There seems to be a growing dissatisfaction among the philosophy teachers themselves with the character of the work in the letters sections. The feeling is more or less wide-spread that the pupils are approaching the problems in a less truly philosophical spirit, that they are too willing to accept unquestioningly the dictum of the teacher, an attitude that betokens a decreased interest in the subject itself. Agreement as to the facts has nevertheless brought no unanimity as to the fundamental causes. The new program cannot be held entirely responsible for all this changed attitude, for the trend was already well marked before the change became effective. It is probably a contributory cause, however, with the real reason lying deep down in that utilitarian tendency that thrusts aside speculative, philosophical thought for the more alluring practical pursuits. It is worthy of note in passing that coincident with this decadence of the philosophical spirit in the letters section, the former apathy toward philosophy in the scientific section has been correspondingly modified. It must be borne in mind, nevertheless, that there much of the philosophy is very closely related to the science work of that course.

Trend in Philosophy.

In appreciating the philosophy instruction in the secondary schools, one must keep in mind the spirit and purpose underlying it all. The psychology is not taught to make psychologists; the logic, logicians; the ethics, moralists; the metaphysics, metaphysicians; the philosophical doctrines, philosophers; but rather with the hope of giving these young men toward the end of their liberal education some notion of what philosophy really means, a notion that shall serve as a fitting introduction to the later consideration of the subject if they pursue their studies further in the arts faculty of the university, or if they enter upon their professional training or go directly into the world of affairs, that shall send them into life with an insight at least into some of the intellectual problems that have held the atten-

Aim of the Course.

tion of thoughtful men ever since the race began, all the time considering the philosophy not as a special science, but as an element of and a means toward general culture.

Morale

A subject that is very closely allied to the philosophy instruction of the first year is the *morale* of the fourth and third forms, to which the application of the English term "ethics" would be a little misleading, but which is really nothing less than an elementary treatment of that subject adapted to the comprehension of lads of thirteen or fourteen years of age. It is placed thus in the last two years of the first cycle with the avowed intention of fulfilling a purpose partially similar to that of the philosophy at the end of the course, in order to show those pupils that may leave the lycée at that point some of the responsibilities devolving upon them as members of present day society, and to give them some formal, definite standards of conduct which shall govern their further attitude toward themselves, toward their fellow men, and toward the State.

The detailed program given below, which is required of all pupils in the fourth and third forms, will show the topics discussed:

FOURTH FORM

MORALE, 1 hour. Lectures, recitations, systematic conversations suitable alike for strengthening the feelings favorable to the moral development and for overcoming the contrary tendencies.

SINCERITY. Frankness and the spirit of deceit. Truth and falsehood. Being and seeming. Hypocrisy. COURAGE. Bravery and cowardice. Vigor and laziness. Perseverance and fickleness. Courage against suffering, against pleasure, to resist opinion for conscience's sake, to recognize one's faults, to confess. Moral weakness. MORAL DELICACY. Disgust at vulgar pleasures. UPRIGHTNESS. Stealing, fraud, injustice. Keeping one's word. Uprightness of the school boy. GOODNESS. Affection for parents, brothers. Comradeship. Friendship. Politeness. Pity and cruelty. Generosity. Kindness toward animals. EDUCATION OF SELF. Feeling of moral dignity as opposed to dishonor. Self-control. Strength of character and disinterestedness. Authority of conscience and respect for law. The upright man.

THIRD FORM

MORALE, 1 hour. Lectures, recitations, systematic conversations adapted to enable the pupils to understand the value of human and social aims.

SOLIDARITY. Action and reaction of individuals upon each other. Individual's debt to society; influence of his actions upon his social environment. Duties resulting from solidarity. Obligation created by the instruction one has received. JUSTICE AND FRATERNITY. Rights of the individual. Freedom of thought; tolerance. Relief (of the poor). THE FAMILY, its social and moral rôle. Vocation. Moral and social obligation of work. Vocational activity as a social function. Vocational uprightness. Spirit of initiative, of association. THE NATION. Idea of country. Inculcation of patriotism; love of country as a vocational duty. THE STATE AND THE LAWS. Legality. Functions of the State. Democracy and the principles of 1789. HUMANITY. International relations, justice. Civilization. INDIVIDUAL LIBERTY AND SOCIAL DISCIPLINE. The good citizen.

Its Place.

As to whether or not this instruction attains the desired end there is no unanimity of opinion. Time alone can answer, and long before the reply is ready, countless other forces play upon the individual and so complicate the problem that no answer is ever returned. At all events, one is inclined to be sceptical of the success of any attempt to inculcate by a direct method feelings which must be worked out in action, like truth, courage, perseverance, integrity, politeness. The fact that a specific period of one hour per week is set apart for such a series of lessons would seem likely to militate against the very purpose for which it is given, namely, that the mind shall become so permeated with these higher feelings that all those tendencies of a baser sort will forever be inhibited. The conviction expressed by M. Croiset, the distinguished Dean of the Faculty of Letters of the Sorbonne, that "the best lesson is perhaps that which occupies no fixed time in the school program, but which comes forth spontaneously, naïvely from the very personality of the teacher and from all his words" has not yet found general acceptance. Contrast with this the feeling expressed by one of the head masters who would have *morale* in the program if only for policy's

sake: "If this instruction does not figure in the program under a special rubric, it is strongly to be feared that many families and a great number of the pupils would believe in good faith that it was not found in the lycées."[1]

As a matter of fact, the subject occupies a place in the curriculum in response to a general feeling that some provision must be made for accomplishing the work formerly attributed to the religious instruction. Since the complete laicization of public instruction in the early eighties, all the religious training in the lycées has been optional, the government continuing to maintain the chaplains there just as before. The recent dissolution of the *Concordat*, however, is just now beginning to have its effect in the lycées, and the positions of those resident priests are being suppressed; so that not long hence they will have all disappeared, and the Catholic clergy will then come in from outside the schools, just as their Protestant and Jewish brothers have long been compelled to do, in order to give religious instruction to the boys of their faith. In the meantime this "moral" instruction, imposed upon all, sets before itself the peculiarly difficult task of establishing for boys of thirteen or fourteen years of age a certain standard of ethical principles that shall serve as the basis of conduct throughout the rest of their lives.

Common Law

The common law which receives one hour per week in the third form Division B is another subject introduced for the purpose of orientating the pupils that leave at the end of the first cycle with respect to some of the fundamental legal principles upon which the national life is based. These are treated from the point of view of the individual's rights and responsibilities with respect to the State and with respect to the family. The accompanying program is sufficiently explicit to show the general method of handling, so that no further comment is necessary:

[1] Quoted in DARBON, *L'enseignement de la morale au lycée*, in *Revue universitaire*, 1907, II., p. 12.

INTRODUCTION. Law. Custom and law. Relation between ethics and law. Public law: constitutional, administrative, criminal, international. Private law: civil, international, commercial, civil procedure. Codes.

I. PUBLIC LAW

RIGHTS OF A FRENCH CITIZEN. Civil liberty. Individual liberty of conscience, of religious belief. Liberty of work, of trade, and of manufactures. Liberty of meeting and of association. Liberty of the press. Voting taxes. Military service. NATIONAL SOVEREIGNTY AND UNIVERSAL SUFFRAGE. Constitutional laws of 1875, revision of 1884. Public powers: legislative, executive; why and how separated. Legislative: senate and deputies. Executive: President, ministers, parliamentary government. ADMINISTRATIVE ORGANIZATION. Division of France. Department: prefect and general council, departmental commission. Arrondissement: sub-prefect and arrondissement council. Commune: mayor and municipal council. JUDICIAL ORGANIZATION. Publicity and gratuitousness of justice. Jurisdiction in civil and commercial cases: (1) justice of the peace; (2) courts of first instance; (3) court of appeal; (4) courts of business; (5) trade councils; (6) supreme court of cassation. Ministry. Officers of justice: barristers, attorneys, notaries. Summary notions of administrative jurisdictions: prefectoral councils, council of State. The audit office. GENERAL PRINCIPLES OF CRIMINAL LAW. Infractions and penalties. Charge and guilt; attendant circumstances. Courts of repression: preliminary examination at examining jurisdiction; courts of punishment: police courts; assize courts; court of cassation.

II. CIVIL LAW

INDIVIDUAL AND THE FAMILY. (1) Nationality; citizenship. (2) Constitution of the family: marriage. Blood and marriage relationship. Family rights and duties: parental and marital authority. (3) Protection of incompetence: minors, insane, spendthrifts, and weak-minded. (4) Establishment of the principal facts of civil life; legal papers.[1] POSSESSIONS. (1) Property, how acquired. Inviolability (dispossession for public purposes). Principal divisions: usufruct, charges against the property. Copyrights and patents. (2) Laws of credit; different kinds of obligations. Incomes. Private incomes; sources of obligations; contracts and defaults. Summary explanations of the most common contracts (sale, lease, transportation, business). Proof of contracts. Privately executed deeds. Creditors' rights. Negotiable securities. (3) Means of obtaining credit; secured debt, mortgage, commercial paper. INHERITANCE. (1) Interstate inheritance. Classes of heirs. Share disposable and reserved; equality of distribution. Obligations of the heirs: inventory fee. (2) Testamentary inheritance. Forms of wills; varieties of legacies.

[1] Birth, marriage, and death certificates.

Drawing

Drawing is one of the most extended of all the courses in the French secondary school program, commencing in the infant class and continuing until the very end. The fact that it is optional in the letters sections of the first and philosophy forms subordinates it slightly to French, history, geography, mathematics, and science, but in the science sections it is second to none, surpassing there even the mother tongue, for in the final year of the course that disappears entirely as a separate subject of instruction. To be sure the drawing never occupies a very large share of the time, in the letters sections never more than two hours per week, but its constant presence suggests the importance of the rôle played by the aesthetic in the French philosophy of education, a phase of general culture alas! too universally neglected in our American courses of study. Artistic feeling and appreciation are too subtle to be evaluated. We have no definite unit in terms of which we can even approximate their worth. They certainly have no direct commercial value, at least for the great majority, and the average American school board is too much engrossed in the tangible results to afford more than grudging support to the fine arts. Small wonder, then, that France far surpasses us in the wide-spread appreciation of and love for the beautiful. The place given to drawing in the public schools is one very potent factor in the creation and development of this artistic spirit. However much one may object to the formal character of the course, it certainly accomplishes results that are strikingly apparent not only in the superior excellence of the drawing itself, but that reach over into the mathematics and science note books of the school course and even stretch out into the life beyond. Here, also, the French artists receive their preliminary training, and the suggestive and selective function of this elementary art work cannot be overestimated.

The following program will show the development of the course with its extremely logical organization of subject-matter:

INFANT CLASS. Line combinations. Elementary exercises on co-ordinate paper, including also drawing from memory and from dictation.

FIRST PREPARATORY FORM THROUGH THE SEVENTH FORM, 1 hour per week. I. Sketching and division of straight lines into equal parts. Evaluation of the comparative relations between straight lines. II. Reproduction and evaluation of angles. III. Elementary principles of decorative drawing. Circumferences. Regular polygons. Star shaped rosettes. IV. Regular curves other than the circumference. Elliptical curves, spirals. Curves taken from the vegetable kingdom. Stalks, leaves, flowers. V. First notions of the representation of objects in their real dimensions (elements of geometrical drawing), and in their apparent form (elements of perspective). Besides this, exercises in free-hand drawing, drawing from memory, and from dictation.

SIXTH AND FIFTH FORM, 2 hours per week. I. Geometrical drawing in outline and perspective drawing with light and shade, of geometrical solids and simple common objects. II. Drawing from ornaments in relief,[1] non-living forms, such as: mouldings, egg shaped and heart-shaped ornaments, pearls, denticles, etc. III. Drawing from ornaments in bas-relief, living forms, such as: ornamental leaves and flowers, palm leaves, foliage, etc. IV. Drawing from architectural fragments, such as: dadoes, pedestals, bases and shafts of columns, door facings, cornices, etc. V. Drawing of the human head. Elementary notions of its general structure and the proportion of the different parts.

In the course of the sixth, fifth, and fourth forms, some lessons are set apart for architectural drawing with the aid of ruler and compass.

FOURTH FORM, 2 hours per week. I. Drawing from architectural fragments, such as: capitals, masks, claws, griffins, theatrical masks. Vases, decorative animal heads. II. Drawing of the whole and of the proportions of the human figure from engravings and from bas-reliefs. III. Study and drawing of parts of the human body. Elementary notions of anatomy. The extremities and details of the human figure from engravings and from plaster models.

Except for the simple mechanical drawing which has been given one hour per week to the Division B classes of the fifth and fourth forms by the mathematics teachers, and the loss of one hour per week for those that begin Greek in the

[1] These subjects are all taken from classic models chiefly from Greek and Roman art and architecture. The human figures used in later work include the well known colossal head of Juno, the masks of Dante, Mazarin, Francis I., and Napoleon, and the statues of the Venus de Milo, the discus thrower, and Michael Angelo's slave. Thus the course lays under tribute the finest masters of ancient and modern sculpture.

fourth form, the drawing has all been the same up to this point. From now on the two groups of pupils begin to separate somewhat as the emphasis upon mechanical drawing in the science sections becomes more and more pronounced.

Similarity of the Courses.

The free-hand drawing program, two hours per week, identical for all the sections of the third and second forms, is as follows:

Third and Second Forms. Free-hand Drawing.

I. Drawing from architectural fragments. Decorative figures. Caryatides. Vases ornamented with figures. Ornamental friezes. Ensemble and details of the Doric, Ionic, and Corinthian orders. II. Drawing of the human figure and of animals from engravings and especially from high relief models.

In addition to the free-hand drawing, the scientific students from the third form up have mechanical drawing quite distinct from that of the mathematics classes of the lower forms. The program is as follows:

Mechanical Drawing.

THIRD FORM

Division B

Mechanical Drawing, 1 hour. Theory of shades and shadows, with wash-drawings of the simpler bodies, surfaces of revolution, and machines. Details of the simpler machines. Elevation of the same, and their geometrical representation to scale. Some of these drawings will be washed.

SECOND FORM

Mechanical Drawing, 2 hours. (Programs common to Sections C and D.) Use of instruments for drawing straight lines and circles (ruler, compass, square, protractor). Instrumental drawing of constructions explained in the geometry. Geometrical designs: tiling, parquetry, mosaic flooring. Use of India ink and water colors for some of these drawings. Free-hand elevation drawings of common objects.[1]

[1] The common objects in this and subsequent classes include: articles of furniture, kitchen utensils, joiner's and locksmith's tools, hardware and tiling, mouldings, balustrades, and grille work that concern building operations.

The four sections of the first form and the two of the philosophy form have a common program for free-hand drawing, two hours per week, required in the scientific sections of the first form, but optional in the others.

First and Philosophy Forms. Free-hand Drawing.

The program is as follows:

I. Development and application of the preceding work (some lessons may be devoted to a study of the head from nature). II. Study of landscape from engravings. (When circumstances permit, the pupils may have practice in drawing landscapes and buildings from nature.)

FIRST FORM

MECHANICAL DRAWING, 2 hours. Elevation of the details, and geometrical representation in outline, to scale, of the geometrical solids and the common objects. Shadows, together with the theory and practice of wash-drawing. Elevation of the details and geometrical representation to scale of the parts of the simpler machines (some being washed). Free-hand elevation drawings of common objects.

MATHEMATICS FORM[1]

MECHANICAL DRAWING, 2 hours. (Programs common to Sections A and B.) Continuation of exercises of previous year on shading and wash drawing. Spiral surfaces. Notions of perspective. Machine and construction drawing. Free-hand elevation drawings of common objects.

Below the sixth form the drawing teaching is in the hands of the regular class teachers, but from that point on it is all done by highly trained specialists, most of the teachers being old Beaux-Arts students. The result is that these men are not mere drawing teachers,— they are artists. The equipment for the drawing is uniformly excellent, large, high, and well-lighted rooms with northern exposure, and a bountiful supply of plaster models, the walls of some of these studios being fairly covered with material. In one of these rooms that I visited there were two classes, a third form and a group of upper class boys each ranged in a series of concentric circle

[1] There is no program outlined for the two hours optional course in free-hand drawing in this course.

arcs and each working under its own teacher. As is frequently the case, the third form boys were divided into two groups according to ability, one sketching the bust of a man, and the others still working on a low relief rosette. Occasionally one finds some of the cleverest fellows modelling their own designs in plaster, but this is quite apart from the official program, and is encouraged only in exceptional cases. Happily the ideas of the independent school have not succeeded in divorcing modelling from a thorough grasp of the fundamental principles of drawing.

Gymnastics

Although gymnastics and gymnastic instruction have formed the basis of decrees, orders, and ministerial instructions from time to time, the subject does not seem to have found a regular place on the official programs. The work is still given in accordance with the official circular of 1890 and the *Manuel d'exercices gymnastiques et de jeux scolaires* published in the following year, for the joint ministerial commission appointed in September, 1906, at the instance of the Minister of War, to draw up a new uniform program of gymnastic instruction to be followed in the schools, in gymnastic associations, and in the army, has not yet sent in its report.

Development of the Instruction.

Until a little more than twenty years ago, the sum total of the work in physical education was limited to gymnastics, fencing, and a much supervised and restricted kind of target shooting, the first named receiving formal recognition in the official program, the two latter being entirely optional, and paid for as extras. The gymnastic work was in the hands of special teachers, for the most part former instructors of the old military gymnastic school of Joinville. Classed as irregulars, these teachers had little authority over the boys, and exercised still less control. The exercises were all taken bodily from those in use in the army, where mere muscular development seemed to be the prime object. The result was that these various movements

were executed blindly, without any regard to the physiological influence upon the pupils. The introduction of the Ling system of Swedish gymnastics, however, marked a decided advance over the former conditions.

The system at present in vogue is that of M. G. Demeny. M. Demeny proceeded in a logical fashion, studying the physiological effects of the various movements upon the growth and the functioning of the human organism. His cardinal principle was not to use a single movement that he did not know to have a beneficial effect upon the boy. This eliminated much of the former work which was decidedly special in its nature and of value to the soldier class, and furthermore was adapted to the needs of the adult rather than those of the young. Free use was made of the larger movements that are conducive to proper carriage and general sound bodily vigor rather than to those that tend to develop the athlete. Throughout it all the æsthetic, the economic, and the moral influences are constantly kept in view.

Purpose.

In order the better to realize these ideals, the Minister of Public Instruction organized a course in physical education in the summer of 1903, under the direction of this M. Demeny. It has been given every year since that time in one of the Paris lycées, and it attracts teachers from all over France. The course consists of a series of lectures by specialists in this field of work, largely physicians who not only know the anatomy and the physiology of the human body, but who also know "the boy," and this theory is supplemented by a large amount of practical work in the school gymnasium. Those that pass the examination at the conclusion of the course receive the higher diploma for gymnastic instruction. As fast as the old teachers retire their places are filled by the holders of these special diplomas, so that before very long all the physical education will be upon a distinctly higher and saner plane.

Teaching Force.

To the eye of the ordinary visitor, the method of M. Demeny seems to follow substantially the Swedish system, though most

of the movements are performed without even the light wands in use there. As long as the weather permits, these exercises are mainly conducted in the open air, the gymnasium serving chiefly in periods of inclement weather, and for the jumping, climbing, and bar work which furnish an opportunity for competition and so serve to vary the dull routine of marches, rounds, and ordinary corporal movements. Gymnastic work occupies one and a half hours per week, commonly divided into three half-hour periods in every class except the Saint-Cyr preparatory. In view of the physical examination required of all candidates for this military school, these boys have two additional periods per week, aside entirely from the horseback riding which is likewise required of them.

The Work in the Schools.

Although even to the casual observer there has been a marked increase in the athletic spirit in France during the last five years, I have never yet seen a gymnasium class where there was any live, spontaneous interest in the work. In fact most of the boys seem to go through the movements in a most nonchalant sort of fashion, as though it were some task that had to be done, and the sooner it was over the better. In spite of the growing interest in scholastic sport, it will probably be many a year before any game even approximates the position occupied by football and cricket in England, or football and baseball in the United States.

Lack of Interest in Athletics.

CHAPTER XIV

THE PUBLIC EDUCATION OF GIRLS

Girls' Lycées of Recent Date.

UP to this point there has scarcely been even passing reference to the education of girls. When one recalls that in May, 1907, were held the commemorative exercises celebrating the twenty-fifth anniversary of the foundation of the first girls' lycée, the significance of this omission at once becomes apparent.[1] In December, 1880, the law providing for public secondary education of girls under state control passed the parliament in spite of strong opposition, which in the case of the senate seriously jeopardized the passage of the bill on more than one occasion. Not that there had been no secondary education of girls before that time, but it had been exclusively under private jurisdiction, the major part of the schools being in the control of the religious teaching bodies of the church.

Education during the Eighteenth Century.

Even in the early years of the nineteenth century very little had been actually accomplished toward girls' education. "It is only within fifty years," says Madame Campan, writing about 1812, "that attention has been paid to the education of women; the progress of this phase of public instruction has been really notable only since the crisis of the French Revolution. Twenty-five years before that epoch, almost all the girls spent only a single year in the monasteries, and that year was the one destined for a thorough study of the catechism, for the retreat, and for the first commun-

[1] The whole June (1907) number of *L'enseignement secondaire des jeunes filles* is devoted to the quarter centennial celebration.

ion. . . . But the practice has long been abandoned of leaving girls behind the convent grating up to the age of eighteen whence they come forth without knowing how to write two words of French."[1] The great social reforms of the Revolutionary period, in spite of their efforts toward levelling the existing inequality of the sexes educationally speaking, had really accomplished nothing for the secondary education of the gentler sex. "They resulted only in philosophical speculations, and for anything beyond primary instruction, their projects are silent; from the year IV. until the year VIII. (1796–1800) the administration reports of the department of the Seine make no mention of any public instruction of a higher order for girls."[2]

School at Écouen.

The school at Écouen, founded by Napoleon in 1807, resembled in some respects the old school at Saint-Cyr established by Louis XIV. more than a century previous and so intelligently administered by Madame de Maintenon. Saint-Cyr was destined for the education of the daughters of impecunious noblemen; Écouen was intended for the daughters and sisters of members of the Legion of Honor. A public school drawing its pupils from all ranks of society but nevertheless from a very narrow vertical section of society, the chief claim to the secondary character of Écouen rests upon its segregation from the ordinary primary schools then in existence and upon the fact that it intended to retain its pupils until they reached the age of eighteen years. Out of regard to the objections of the general officers to the very democratic character of the school, a similar establishment was opened at Saint-Denis, two years later, which was set apart for the children of officers above a captain. Écouen was soon absorbed by Saint-Denis and under the Restoration disappeared entirely. The instruction and board at both these institutions as well as those subsequently founded for a similar purpose were free, but there was some provision for

[1] Mme. Campan, *De l'éducation, édition Barrière*, 1824, I., p. 225.
[2] Gréard, *Enseignement secondaire*, I., p. 104.

board and tuition fees from those in position to pay. At one time Écouen had as many as five hundred pupils. In accordance with Napoleon's express direction, religious instruction occupied the first place in the course of study; he sought to turn out "believers rather than reasoners." The other instruction embraced French history, geography, arithmetic, writing, dancing (merely to give a proper carriage), drawing, music, sewing, mending, and a kind of household economy. This latter included the home accounts, care of the linen, bed making, cleaning and sweeping the class rooms, and laying and serving the meal. The attempts to teach washing, ironing, and putting up preserves were not so successful, for Madame Campan "promptly repented of entrusting muslins to their hot irons, and fruits and sugar to their inevitable epicurism."[1] She concluded that this sort of instruction could not profitably be given to young women under eighteen years of age. They were furthermore taught to look out for their comrades in the lower classes, and to give them certain instruction with a view to teaching their own children later on. However much Madame Campan may have tempered the severity of the discipline found in other girls' schools of the period and however practical this instruction may have been for the young women, it was not always received by them with good grace, and some protested vigorously against the régime of the school in words that might almost seem to have been written by a newly arrived pupil of yesterday: "The cruel bell has just made itself heard again; it ceaseth not to sound for the beginning of class work, the writing lesson, and the instruction period. I could pardon its infernal noise if it would only ring oftener for play time. It rings ten minutes before dinner so that we, like servants, may fulfil the disagreeable duty of cleaning out our desks and sweeping the class room; then it rings for dinner, for supper, and for bed; but the most detestable of all these sounds is that in the morning: everything

[1] Mme. Campan, *op. cit.*, p. 283.

goes like clockwork here. O! how I long for my little room at Valma, so calm, so remote from the noise of the street! How unjust I was when I murmured against a poor rooster that woke me up, of a truth too often, but he at least left me free to go to sleep again! Here three hundred people have to move as one, in accordance with a single will, in a set fashion; there are details, too, that disgust me."[1] These schools for the children of the members of the Legion of Honor do not indicate any very widespread interest in the cause of girls' public secondary education on the part of the State, but they represent the sum total of its efforts in that direction.

The First Empire had thus accomplished nothing of a general nature; its immediate successors were no more fortunate. In the meantime private enterprise had not been idle. The number of lay and clerical institutions multiplied rapidly, so that by 1848, in the department of the Seine alone, there were two hundred and ninety-four with a population of more than fifteen thousand.[2] Twenty-eight of these schools were convents. The ordinance of the king in 1821[3] had recognized an order of instruction above that given in the primary schools, dividing establishments of this sort into two categories, boarding schools (pensions), and "institutions." As prescribed by regulation in 1837,[4] a document which Gréard considers "as

Private Venture Schools.

[1] MME. CAMPAN, *Lettres de deux jeunes amies, élèves d'Écouen*, p. 51.

[2] GRÉARD, *Enseignement secondaire*, I., p. 117.

[3] *Ordonnance*, Oct. 31, 1821, reprinted as Annex I. to *Règlements et arrêtés concernant les maisons d'éducation de filles*, 1844, pp. 488–489.

[4] *Ibid.*, p. 490. This regulation is significant as for the first time distinguishing clearly the scope of these two types of girls' higher schools. The differentiation here is plainly along the lines of subject matter.

The divergence between the boarding schools and the "institutions" seems to have become less marked a few years later. See MARIE SINCÈRE (MME. ROMIEU), *Les pensionnats de jeunes filles*, 2d edition, 1854, p. 10, where the instruction in these two kinds of establishments is said to be exactly the same, the distinction between the two depending solely upon the grade of diploma possessed by the mistress of the school. The head of the "institution" held a full diploma from the city hall authorities or from the Sorbonne, while the head of the boarding school had merely a second class diploma.

the first charter of girls' secondary education," the subjects of instruction in the boarding schools included: "moral and religious instruction, reading, writing, French grammar, arithmetic through proportion and the rules depending thereon, history of France, modern geography, elementary notions of physics and natural history in their practical applications, drawing, music, sewing, and modern languages." In the more advanced schools, the "institutions," the program embraced all these subjects, together with "the elements of literature and the principles of taste as applied to style, ancient geography, ancient and modern history, and the elements of cosmography." Both these grades of schools were essentially boarding schools. With a view to regulating the abuses that had crept in as a result of the rapid development of these private venture enterprises, the prefect of the Seine, with the confirmation of the Minister in 1844, appointed three women to inspect these girls' schools of the department.[1] Their responsibilities were extended so as to include religious as well as lay schools, but in the case of the former the official inspection was ordinarily made in co-operation with an ecclesiastic appointed by the archbishop. These newly appointed women inspectors evidently did their work well, for in the next few years there was an appreciable decrease in the number of these lay institutions, the less desirable of them being forced out of existence.

Rise and Fall of Public Interest.

For the moment, it seemed as though definite results would evolve out of this widespread interest in the education of girls. In 1847 the report was noised abroad that a commission had even then been appointed to consider the question of establishing girls' colleges that would take rank beside those already in existence for boys. The following year an elaborate plan[2] was presented to the Minister of Public Instruction for

[1] *Règlements et arrêtés, supra*, pp. 487–488. See also *Journal général de l'instruction publique*, Sept. 13, 1845, p. 482; and MME. BACHELLERY, *Lettres sur l'éducation des femmes*, I., p. 490.

[2] MME. BACHELLERY, *Lettres sur l'éducation des femmes*, pp. 211–237.

creating a normal school to prepare teachers for these colleges-to-be, a plan remarkably interesting for the emphasis placed upon industrial work and household economy of a most practical sort. The reactionary Falloux law of 1850, however, put an end to all these hopes. A rapid increase in the number of private courses taught by women was one of the salient consequences of this new law, but no material progress toward state established institutions was recorded for nearly two decades. Jules Simon in 1867 characterized the instruction in even the best of the boarding schools as "futile and incomplete, all the accomplishments, but nothing serious or elevating." At the same time Minister Duruy denied that there was any real secondary education of girls in France at all.[1]

Not only did M. Duruy signalize the defect but he also pointed out a remedy. As a result of his recommendations[2] secondary courses for girls sprang into existence in various parts of France, and thus a foundation was laid upon which the superstructure of the college and the lycée could subsequently be erected. In Paris a group of well known people formed the "Association for Girls' Secondary Education," among the charter members of which was M. Levasseur, the distinguished professor at the College of France, who to-day is still the executive head of the organization. Each course came once a week for three years, a lecture in letters and one in science occupying consecutive hours on Tuesday, Thursday, and Saturday afternoons. The year extended from the first of December until the end of May, the first half devoted to domestic economy and mathematics, literature and natural history, French history and chemistry, on Tuesday, Thursday, and Saturday respectively, and the second half correspondingly to geography of France and mathematics, literature and physics, French history and natural history.[3]

Foundation of Secondary Courses.

[1] *Instructions aux recteurs, Bull. adm.*, 1867, II., p. 472.

[2] See *supra*, p. 80.

[3] See the prospectus of the association, in *Bull. adm.*, 1867, II., pp. 515–519.

The program was patterned after that of the newly founded "modern" course for the boys' secondary schools, although modern language work was conspicuously absent, for that demanded a more intensive study than this attenuated scheme permitted. The succeeding year, however, English, German, and drawing were added, the domestic economy was replaced by grammar, and the whole course was established on a more substantial, logical basis. Following the analogy of the boys' schools, it led up to a diploma which grew more valuable as the standard of the work improved from time to time. Far from meriting the name of school, this was nevertheless an organized system of secondary education for girls under government sanction and control which prepared specifically for a government diploma. Just as this secondary course formed a step in the evolution of the national system of girls' secondary education, so it ordinarily constitutes a preliminary stage in the development in any particular community to-day. In other words, in case the demand is sufficiently strong, a secondary course will be organized in a town, a comparatively inexpensive experiment at the most, to try the public temper and the public purse if they be ready to undertake the secondary education of young women. If the venture is successful, the course is likely to be transformed into a college.[1] More than one of the present lycées have passed through these two transition stages. Few if any of the early secondary courses however, developed directly into the more permanent form of college or lycée, but they at least blazed the way. The secondary courses, which for a long time provided the only opportunity for girls' secondary education, are seldom looked upon as permanent institutions, although in some cases the communities prefer to support this character of secondary instruction rather than to assume the additional burdens and responsibilities that the creation of a lycée or a college would entail. They are almost always in charge of a directress.

[1] Four of the five new colleges opened during the year 1906–7 represent these transformed secondary courses. *Bull. adm.*, 1907, II., p. 769.

In the few cases where a man is at the head, there is a woman associated with him. The teaching force is ordinarily drawn from the staff of the boys' lycées or colleges in the vicinity. Some of these secondary courses follow the regular program of the lycées and colleges while many of them cut this down appreciably. In either case they have no authority to grant the diploma, or even the certificate at the end of the third year.[1] Their courses in a general way prepare for the examinations for the elementary and the higher diplomas (*brevet élémentaire* and *brevet supérieur*) of the primary school system, so that the pupils successful in passing either of these state examinations thus have a sort of testimonial of graduation. Every year graduates of these courses enter the competition for admission to the school at Sèvres, and not a few of them are successful.

Establishment of State Schools, 1880.

The law of December 21, 1880, in definitely ordering the establishment of girls' secondary schools, put an end to a discussion that had been going on in the Parliament for more than a year, and had more than once given rise to acrimonious debate.[2] The opposition from the clerical party was particularly vigorous. It was based primarily on the assertion that girls' education was already adequately provided for in the schools then in existence, although one speaker went so far as to point out the great danger to domestic happiness and comfort that would result from over-educating the women.[3] A far stronger basis for this opposition was undoubtedly the fear of loss of prestige through the competition of the state schools, and the foreshadowing of the subsequent complete laicization of the whole school system in the omission of religious instruction from the course of study. The other chief point of contention was as to whether these new lycées and colleges should be boarding schools or day schools. As finally

[1] Exception is made in the case of the course of the *Ligue de l'enseignement* at Algiers, which is authorized to grant both these academic distinctions.

[2] For the parliamentary debate and the detailed account of the passage of this bill, see CAMILLE SÉE, *Lycées et collèges de jeunes filles*, pp. 57–459.

[3] *Ibid.*, p. 204.

passed, the law provided for day schools, but it further put them on the same footing as the boys' colleges, so that the municipalities might annex boarding departments to the lycées at the charge either of the principal or of the community. As a matter of fact, boarding departments have been added in nearly every case except in the Paris lycées, so that to the casual observer the organization of these girls' schools is no whit different from that of an ordinary boys' lycée. The State, however, is relieved of the responsibility and the expense of maintaining the boarding departments, which experience in the case of the boys' lycées had shown to be no slight burden. In accordance with the new law, the first lycée was opened at Montpellier in the fall of 1881; that at Rouen followed at the beginning of the next school year; the first at Paris, Lycée Fénelon, opened its doors in September, 1883; Auxerre, the first of the communal colleges, was opened the month after Montpellier, and was in turn followed by Grenoble early the next spring.

The fees in the girls' lycées are considerably lower than in the boys', ranging for the day pupils from 40 to 110 francs per year; for the supervised study pupils, from 55 to 130 francs; for the half boarders, from 250 to 400 francs; and for the boarding pupils, from 400 to 600 francs in the lycée at Agen, up to 100 to 250 francs, 150 to 300 francs, 400 to 600 francs, and 825 francs per year for the corresponding categories of pupils at Versailles. In most cases the fees increase with the advance in class, although a few of the schools follow the custom in vogue at Versailles of charging a single price for all resident pupils. In the Paris lycées, where there are no boarders, the day pupils pay ordinarily from 200 to 300 francs, and for the supervised study periods from 100 to 150 francs additional. The fees at the girls' colleges are slightly lower on the whole. Fees.

The following table will show the growth of the lycées colleges, and secondary courses up to the fall of 1907:[1]

[1] *Statistique de l'enseignement secondaire en* 1887, t. II.; SÉE, *op. cit.*, p. 1208; *Bull. adm.*, 1907, II., p. 769.

GIRLS' LYCÉES, COLLEGES, AND SECONDARY COURSES

	First foundations	Number of establishments			Number of pupils		
		1887	1897	1907	1887	1897	1907
Lycées	Montpellier Jan. 1882 [1]	20	36	47	3330[2]	7792	16760
Colleges . . .	Auxerre May, 1882	23	27[3]	61	2678	3051	10184
Secondary Courses . .	Le Roche-sur-Yon, May, 1879 [4]	69	?	63	4395	?	6899

Public Expense.

In spite of the spread of girls' secondary education during the last quarter century, it does not yet occupy the same importance in the public eye as does that of the boys. The State and the communities have spent large sums of money, but they have not been lavish in their gifts for this purpose. The total expense to the State of the one hundred thirteen boys' lycées for the year 1908 (exclusive of scholarships and building grants) was about fourteen and a quarter millions of francs, while in the forty-six

[1] This is the official date of the foundation, although both Montpellier and Auxerre were opened provisionally in the fall of 1881, the former in October and the latter in November.

[2] None of these population figures represents the number of secondary pupils in our sense of the word, for they likewise include the pupils in the elementary classes. The lycée figures for 1897, for example, are composed of 4352 real secondary pupils and 3440 in the lower classes. For the colleges in the same year, the numbers are 1648 and 1403 respectively.

[3] The growth in the number of colleges by 1897 had really been much greater than this figure would seem to indicate, for seven of the twenty-three in existence in 1887 had in the meantime been transformed into lycées.

[4] Others had been founded before this, but for one reason or another had ceased to exist. This is the return on the basis of those actually in existence in December, 1887.

girls' lycées it was a little under two millions.[1] With 57,160 boys and 15,969 girls enrolled in 1906, for that was the school population upon which these appropriations were granted, the relative difference is seen to be considerable. The boarding department of the boys' schools is undoubtedly responsible for some of this discrepancy, for try as they will the authorities have not yet succeeded in eliminating the deficit here; but that is not pertinent to the point in question. Some of the girls' lycées would be nearly if not quite self-supporting were it not for the free tuition granted to daughters of teachers and functionaries of the department of public instruction, but the boys' lycées are a long way from attaining this position of independence of state support. If figures were available for calculating the expenses of the communal colleges, the difference in favor of the boys would probably be still more striking. In fact, a community has even been known to undersupply the girls' college in order to devote the surplus toward making up the deficit in the local boys' college. Fortunately similar instances are rare, but such parsimony suggests that girls' secondary education is not yet universally looked upon as a right.

Many of the early lycées were established in old buildings, remodelled as well as they could be for school purposes, and in some instances the discarded boys' lycée has been deemed good enough to serve the needs of girls' education. The equipment of the girls' lycées and colleges on the whole is distinctly inferior to that in the corresponding boys' institutions. On the other hand, in the recent addition to the Lycée Racine in Paris, and particularly in the new Lycée Fénelon at Lille, one finds as efficient a type of school architecture as exists in France. In both these schools the class rooms are bright and cheerful, and barring the proverbially poor ventilation, they are good school rooms. Futhermore at Lille the bathing arrangements are well-nigh perfect. Each girl has a daily shower with ample provision for tub baths in addition, the whole

Equipment.

[1] *Budget*, 1908, p. 398.

equipment representing the very highest type of modern plumbing. The improvement in bathing facilities in the last five years in France far surpasses the progress in any other phase of school equipment. Few if any other girls' lycées have reached the point already attained in Lille, but the best of them are even now considerably in advance of the boys' schools in this particular.

The difference between the girls' lycées and colleges is exactly the same as pertains in the corresponding boys' schools.

Administration.

This similarity further extends to the establishment of the schools, the inspection, the administration, and the appointment of teachers. In fact, except for the status of the resident pupils, the programs, and the character of the work, they present few outward differences.

The subjects of instruction specified in the original law remain to-day unchanged, although important modifications in the daily program and in the weekly distribution of hours per subject were made in 1897.

Course and Diploma.

The secondary course proper extends over five years, from the twelfth to the seventeenth year, divided into periods of three and two years respectively. A sixth year has been added in a few lycées in order to prepare for the entrance examination for the normal school at Sèvres. In the first period all the work is obligatory, while in the second a considerable degree of choice is allowed. Successful passage of the examination at the end of the third year confers a "certificate of secondary study," and corresponding success at the completion of the course brings its reward in the secondary diploma (*diplôme de fin d'études secondaires*). This final examination is based upon the required work of the fourth and fifth classes, together with the optional courses of these two years as designated by the candidate. While there is no technical objection to the pupil presenting all these optional subjects, in practice she makes a choice between the letters and the science courses, as represented by the second modern language and the mathematics-drawing of the fourth and fifth years. The requirements

for this diploma are considerably below the standard of the baccalaureate. There is apparently no serious tendency toward an equalization of these two examinations, nor, in fact, is there any reason why there should be, for it is difficult to understand how one could reasonably expect the girls to accomplish as much work in five years as the boys do in seven, and besides these two marks of academic distinction are in no sense of the word rival diplomas. Young women are not eligible for teaching positions in boys' schools, and if they want to prepare for any other of the liberal professions they must first pass the regular bachelor's examination as required of the boys. There is, however, a likelihood that additional classes may be established in some of the lycées in order to offer an opportunity of preparing for the ordinary baccalaureate.[1] This would entail no serious difficulty for the science-modern language section. The absence of any Latin instruction in the girls' schools, however, would preclude the possibility of giving complete preparation for any of the other sections.

As in the case of the boys' schools, elementary or preparatory departments have everywhere been annexed, for the passage

[1] At the session of the Superior Council in July, 1906, M. Appell, Dean of the Faculty of Science at the University of Paris, offered the following resolutions:

1. That the secondary diploma open the way to private school teaching (opening a boarding or a day school).

2. That the secondary diploma be accepted by the State as a guarantee of sufficient instruction for admitting the holder to examinations and competitions for positions outside the teaching profession, wherever the primary diploma is required or confers any advantage (in the post-office department, etc.).

3. That preparatory courses for the baccalaureate should be organized in a certain number of girls' lycées and colleges.

The permanent section approved the resolutions with the reservation that the last should not be understood as implying the introduction of Latin and Greek into the girls' curriculum, but simply as advancing the instruction already in existence there. The Minister adopted the approval of the section. *Bull. adm.*, 1906, II., p. 793.

During the remainder of the year a vigorous discussion was carried on in the pages of the review *L'enseignement secondaire des jeunes filles* on the equalization of the two secondary diplomas, the abolition of the baccalaureate, and kindred subjects suggested by the above resolutions.

from the public primary schools to the girls' secondary schools does not exist in practice. This elementary course is arranged by each directress for her own school, subject merely to the approval of the rector, but it generally conforms very closely to the following type schedule:

Elementary Classes.

WEEKLY PROGRAM

ELEMENTARY CLASSES OF THE GIRLS' SECONDARY SCHOOLS

(Hours per week)

Subjects	Infant class 8–9 yrs.	I. 9–10 yrs.	II. 10–11 yrs.	III. 11–12 yrs.
French	6½	6½	6½	6½
Modern languages	2½	2½	2½	2½
History	1	1	1	1
Geography	1	1	1	1
Arithmetic	. .	2½	2½	2½
Nature study	. .	½	½	½
Needlework	*	*	*	*
Drawing	*	*	*	*

* No definite amount of time specified.

This differs in several noticeable details from the corresponding program in the boys' schools: (1) the late period of beginning, eight years of age as against six in the case of the boys (as a matter of fact these are both reduced about two years in actual practice); (2) the absence of arithmetic in the first year of the course; and (3) the comparatively small number of week hours. M. Gréard expressed the true significance of these differences very suggestively when he said in another connection: "Boys' secondary instruction had its traditions. Girls' secondary education lent itself much more easily to novelties, being itself a novelty."[1] This really discloses the secret of the great difference between the pro-

[1] GRÉARD, *Enseignement secondaire*, I., p. 126.

gram, the régime, and the general spirit pervading the girls' schools in contrast to that which prevails in the boys' schools.

The following are the subjects of instruction and the number of hours per week in the five years of the secondary course proper under the present program:[1]

WEEKLY PROGRAM

GIRLS' SECONDARY SCHOOLS — FIRST, SECOND, AND THIRD YEARS

Subjects	Years		
	I	II	III
Ethics	..	..	1
French language and literature	5	5	3½
Modern language	3	3	3
History	2	2	2
Geography	1	1	1
Mathematics	2	2	2
Natural history	1	1	..
Physics and chemistry	..	..	2
Domestic economy and hygiene	..	..	12 lectures of one hour each
Sewing	2	2	2 (minimum for each year)
Drawing	2	2	2 (minimum for each year)
Singing	1	1	1 (minimum for each year)
Gymnastics	1½	1½	1½ (minimum for each year)
Totals	20½	20½	21

[1] *Arrêtés*, July 16, 1897, and July 31, 1908.

FOURTH AND FIFTH YEARS

Required subjects	Years	
	IV	V
Ethics	1	. .
Psychology applied to ethics and education	. .	2
French language and literature	3	2
Ancient literatures	1	. .
Modern foreign literatures	. .	1
Modern language	3	3
History	2	2
Geography	1	1
Mathematics	½ (1 hour for one semester)	½ (1 hour for one semester)
Common law	. .	½ "
Physics	1½	. .
Physics and chemistry	. .	2
Animal and vegetable anatomy and physiology, hygiene	1	1
Totals	14	15

Optional subjects

Mathematics	2	2
Additional modern language	2	2
Sewing	2 (minimum)	2 (minimum)
Drawing	2 "	2 "
Singing	1 "	1 "
Gymnastics	1½ "	1½ "
Totals	10½	10½
Grand totals	24½	25½

Perhaps the most striking modification introduced by this reform of 1897 was the suppression of the optional Latin in the last two years of the course. Despite the radical nature of the program in its earlier form, the old spirit of classicism was not entirely eliminated, for Latin was offered as an optional subject one hour per week in the fourth and fifth classes. As might have been expected, the amount of work accomplished in this brief time was quite unsatisfactory, so that scarcely a voice was raised in protest when it was finally abolished. As the program stands to-day, it is essentially "modern," with all direct influence of classic tradition eliminated.

Characteristics of the Program.

There is, however, an interesting vestige of Latin and Greek culture in the ancient literature of the fourth year, while the foreign literatures of the fifth year carry this down to the present time. This is an effort to bring the pupils in contact with the greatest literary masterpieces of the Greeks and Romans in the ancient world, and with the classic writers of Italy, Spain, England, and Germany in the modern world. By taking up the authors in chronological order, at least by countries, the course serves as a cursory sketch of the development of literary history. Although naturally subject to all the limitations of any translation, it nevertheless gives the young women the very best thought that the world has produced, and introduces them to a breadth of literary culture that many of our own non-classical college students never appreciate. The one hour per week is quite inadequate to cover the ground satisfactorily, but even with this short time the pupils read over a wide field. There are several series of texts prepared for this very purpose, all similar in general plan. In one such series, Attic tragedy, for example, is covered in a single volume of some two hundred pages, containing three plays of Æschylus, six of Sophocles, and six of Euripides. There is a biographical account of each author, followed by careful translations of selected passages, sometimes of whole scenes. The omissions are supplied by

Foreign Literatures.

brief summaries of the intervening events, so that one is able to get a fair notion of the development of the plot and the characters. The *Electra* of Sophocles, for instance, was all covered in fourteen pages of text with a page of introduction on the play as a whole. Two topics I heard assigned for the next lesson were: (1) Compare the writings of Sophocles and Æschylus; (2) Differentiate the rôles of the chorus in these two authors.

The following complete program will give a clearer idea of the scope of this subject, the fourth year being occupied with the ancient literature and the fifth with the modern:

I. GREEK LITERATURE

The Homeric epic: *Iliad, Odyssey.* Hesiod.
Lyric poetry (iambic, elegiac, ode): Solon, Pindar.
Attic tragedy: Æschylus, Sophocles, Euripides.
Attic comedy: Aristophanes, Menander.
History: Herodotus, Thucydides, Xenophon, Polybius.
Eloquence: Demosthenes.
Philosophy: Socrates, Plato (*Apology, Crito, Phædo*), Aristotle.
Theocritus, Plutarch, Lucian.

II. LATIN LITERATURE

Republic. — Comedy: Plautus, Terence. Lucretius. Cicero. History: Cæsar, Sallust.
Empire. — Poetry: Horace, Virgil, Lucan. History: Livy, Tacitus. Philosophy: Seneca. Pliny the Younger. Christian literature.

FOREIGN LITERATURES

Italy: Dante, Machiavelli, Ariosto, Tasso.
Spain: The *Cid* and *Romanceros.* Cervantes. The drama.
England: Shakespeare, Milton, Swift, Addison, Pope, Byron, Wordsworth. The contemporary novel.
Germany: The *Niebelungenlied.* Goethe, Schiller.

In the girls' schools the term "modern languages" signifies almost exclusively English and German. With the single exception of Brest every one of the forty-seven lycées offers courses in both these languages, and some of the

schools near the southern border offer Italian or Spanish in addition.[1] There are six schools where the former is found, and three where Spanish is given. Using the number of teachers of each language as the measure of its appreciation, the English and the German seem about equally popular, with seventy-nine teachers of the former and sixty-six of the latter language in the lycées.[2] A large part of this difference is found in the five schools in Paris. Outside the capital there has been practically no relative change during the past eight years. At that time the numbers were respectively fifty-seven and forty-nine. The modern language course begins in the infant class and continues as an obligatory subject throughout all the nine years, with the option of taking up a second modern language in the last two years. It follows the same direct method of instruction, with the principles applied rather less rigorously than in the boys' schools.

Traces of the concentric circle plan of studies are discernible in the organization of the history and geography courses, but they are less pronounced than in the boys' schools. The history of the elementary classes is largely national biography and history stories, although in the last year there is a very summary account of ancient history down to the end of the Roman Empire. In the secondary course proper, the work of the first year covers ancient Gaul, and European history through the period of the Reformation; the second year, Europe in the seventeenth and eighteenth centuries; the third year, France, and a very little attention to general nineteenth century history. The last two years, the period

Program in History and Geography.

[1] Arabic is taught in the two colleges and in the secondary courses in Algeria.

[2] This basis of computation unduly favors the German. No official figures are available, but with very few exceptions, according to common report, the number of pupils in the girls' schools studying English is far in excess of the number studying German. In the boys' schools, on the other hand, thanks to the requirement in German for entrance to the École Polytechnique and Saint-Cyr, the conditions are quite reversed.

that might almost be called the second cycle, are entirely given over to a history of civilization. The geography program follows more nearly the scheme that prevails in the primary school system: the first year, the world except Europe and Asia; the second year, Asia, and Europe except France; the third year, France and her colonies. In the fourth and fifth years it includes physical and economic geography, the former period with general treatment, the latter with detailed consideration of the various world powers.

Mathematics.

The mathematics program is not very extensive, the required work being limited to arithmetic and plane geometry. There is a good deal of very helpful constructive geometry in the first year that not only paves the way for the demonstration work of the third year, but furthermore provides a thorough drill in the application of the metric system. The optional work of the last two years includes arithmetic, a thorough review of plane geometry, a little solid geometry, enough algebra to solve simple equations of the first and second degree, and cosmography in its more apparent phenomena.

Sewing.

In spite of the thoroughly formal character of the sewing in the girls' schools, they certainly attain remarkably creditable results. Beginning with the Froebelian exercises of folding, weaving, and braiding in the infant class, it continues among the required subjects until the end of the third class of the secondary course. In the elementary section it is almost exclusively mere needlework, but in the upper classes the girls design, cut, and make articles of clothing for themselves. I saw one girl of thirteen or fourteen years of age at the Lycée Racine in Paris who was wearing a shirt waist entirely her own make that for fit, finish, and style would have done credit to a professional dressmaker. Such work as this, however, is entirely optional with the pupils. Not all of them have the skill nor all of them the inclination, but they are given every encouragement in this direction if they are interested enough to provide their own material. Other-

wise the underclothes and the children's garments that make up the major part of the practical work are sent to the various charitable societies and the hospitals of the neighborhood. The national economy is very strongly marked by the importance attached in this course to repairing. The mending of the French housewife is really beautiful to see, and the school exercises in this field not only include plain darning, but they also extend to imitating the knitting stitch of ordinary underwear, as well as the pattern weave in table damask. Graphic representation of the stitch on paper and the working of a sampler are the inevitable preliminaries to the actual work. There is some instruction in machine sewing, but this is naturally reserved for the higher classes.

Character of the School Population.

The population of the girls' schools is drawn from a rather more limited cross section of society than is that of the boys' schools, for the pupils of the former come almost exclusively from the middle and the professional classes. The upper middle class (*haute bourgeoisie*) and the remnants of the nobility send their daughters to private schools, while the lower classes send theirs to the primary schools, where the tuition is free. The consequence is that the girls' secondary schools do practically nothing toward the recruitment of the industrial and the commercial army. These ranks are filled from the primary, the higher primary, and the professional schools. In these secondary schools rather more than half the pupils drop out after the third class on completing the first cycle. In fact, the number leaving at any other time than here and at the end of the whole course is comparatively insignificant. It is impossible to ascertain what proportion carry their studies on beyond the regular fifth year of the course; there are no official figures available, and the estimates vary so widely. It is safe to assume that these are the ones that have to earn their own living; some turn toward the university and the higher professional schools, while others begin their practical preparation for a

teaching career. It is to satisfy this latter demand that some of the lycées have added the sixth year which fits directly for the higher normal school at Sèvres.

School Atmosphere.

The whole atmosphere of the girls' schools is strikingly different from that of the boys'. In the latter there is a prevailing feeling of repression, of a lack of individual freedom, of a coldness in the very air itself, of an ultra barrack room régime that more than one boarding pupil has found well-nigh unendurable. In the former, on the contrary, things are light and cheery; there are everywhere evidences of a cordial good feeling, almost of comradeship, between the teachers and the pupils; the life at the school is freer; there is more time for recreation on ordinary days, and more frequent opportunity for the pupils to get outside the grounds. All in all, it is a most pleasing contrast to the rigidity of the régime to which the boys are subjected. In most of the schools that I visited, each girl had a room for herself, a kind of cubicle, to be sure, formed by constructing a series of partitions seven or eight feet high within the old-time spacious dormitories, but it gives each one a sense of privacy and individuality that is not possible where twenty or thirty sleep in a single large room. Furthermore, each one was responsible for the care of her own room, and opportunity was freely granted to decorate it with cards and pictures according to individual taste. Most of the schools still adhere to the regulation black pinafore, but occasionally one finds a directress, like Mlle. Ecolan at Auxerre, who recoils at the monastic severity of the traditional dress. At Auxerre the girls wear dark blue in winter, and in summer white aprons large enough to answer the purpose of a frock, thereby avoiding the sombre similarity of the prevailing black. In the girls' schools as a whole there are evidences of a consistent attempt at school decoration. This same lycée at Auxerre is noticeable for the progress in this direction. There are flowers in profusion, and every class room has fine photographic reproductions of well-

known paintings or plaster casts of bits of classic sculpture. The same spirit of academic independence, so to speak, pervades not only the program, but its application as well. In the boys' schools, even from the very start, practically everything is focusing upon a single point — the baccalaureate. This is the gate through which everybody that aspires to a professional career must pass, and all energies are consequently bent, and all efforts subordinated, to attaining this goal. The certificate at the end of the girls' secondary course, on the contrary, occupies no such dominating position. It is rather an evidence of work accomplished than a passport to future preferment.

Since the organization of girls' lycées, the teaching force has been composed of both men and women. For a time the men were in the ascendancy on account of the lack of women competent to do the work, but since the normal school at Sèvres began sending out its graduates in 1883 the women have rapidly overtaken the men, so that to-day only thirty of the one hundred and seventy teachers in the purely secondary classes of the girls' lycées in the Academy of Paris are men, while the number for the rest of France is practically negligible. The academic qualifications of the teachers in the early schools were considerably lower than they are at present. At first practically the highest standard attainable was the higher diploma (*brevet supérieur*) of the primary school system, but the precaution was taken of demanding a considerable period of successful teaching experience in addition. To-day, as in the boys' schools, the *agrégation* is required for appointment as a regular professor, although lower qualifications, such as the certificate for teaching in girls' secondary schools, the master's degree in letters or science, or the certificate of modern language teaching, are accepted for appointment as acting professors. In the colleges the standard is necessarily somewhat lower. There is not the close specialization in the girls' schools that one finds in the boys'. When the competitive examination for

Teaching Force.

the girls' *agrégation* was instituted in 1884, there were only two orders, one for letters and the other for science. Ten years later each of these was divided into sections, the letters into the literary and the history sections, and the science into the mathematical and the physical-natural sciences, but this was shortly followed by a circular in which the Minister specifically stated that an *agrégée* of one section could not thereby refuse to teach classes in the other section of the same order, in case the exigencies of the situation demanded it.[1]

Foundation of the School at Sèvres.

Hardly had the law providing for the establishment of girls' secondary schools been promulgated before the sponsors of this movement set about creating an institution that should assure the preparation of competent teachers for the new schools shortly to be established. A new bill was quickly drafted, rushed through Parliament, and only seven months later the complementary law to that of December, 1880, was placed upon the statute books. The school founded in pursuance of this law was finally located at Sèvres in the old eighteenth-century chateau that had long served for the famous state pottery factory. The building was entirely remodelled within, and with its simple architecture, its spacious park, its commanding position overlooking the valley of the Seine, with Paris in the distance, it serves admirably as the home of the highest institution in the land that is devoted exclusively to the education of women. The work of reconstruction was quickly completed, so that by December, 1881, the school was ready to receive its first pupils. The severity of the later competition must have been lacking in these first entrance examinations, for, in the words of one of the candidates, "the examiners tried to find out not what we knew — alas, we knew so little! — but what we were worth . . . the chief effort of these men seemed to be to find questions which we could answer. When our answers were good they

[1] *Circ.*, Aug. 17, 1884, in SÉE, *op. cit.*, pp. 693–694.

were positively enchanted."[1] The course at first was only two years, the pupils being divided into two sections, one for science and the other for letters. The subjects of the former included mathematics, physics, chemistry, natural history, and botany, with ethics, literature, elocution, drawing, and hygiene occupying a relatively subordinate position. Those of the latter included literature, French, philosophy, ethics, history, geography, and elocution. The two sections had classes in English or German, common law, cutting and dressmaking in common. With the institution of the new order of *agrégation* in 1884, the course was extended to three years, the examination for the certificate for teaching in girls' secondary schools coming as before at the end of the second year at the school, and the *agrégation* at the end of the third year.

Admission to the school is solely by competitive examination. Applicants must be French, not less than eighteen nor more than twenty-four years of age in January first of the year in which they present themselves, and nobody may be a candidate more than three times. Besides the regularly attested legal papers that are required of all French citizens at almost every turn, each competitor must have the secondary diploma, the bachelor's diploma, or the higher diploma of the primary system. The examination is partly written and partly oral, the first or written part being held simultaneously in each center of departmental government throughout the country. The papers are all sent on to Paris to be read by two examining boards, one for letters and the other for science, of the teachers at Sèvres. There are five examinations for each section, most of them being four hours in length. For the letters section the papers are as follows: French literature, four hours; grammar, two hours; history and geography, four and a half hours (three for history, and one and a half for geography); elements of ethics and psychol-

Entrance Examination.

[1] MLLE. LEJEUNE, quoted in SÉE, *op. cit.*, p. 988.

ogy applied to education, four hours; English or German, four hours ([1] translation, and [2] short composition in the foreign language with the aid of a dictionary entirely in that language). For the science section the papers are as follows: arithmetic and geometry, four hours; physics and chemistry, four hours (two and a half for physics and one and a half for chemistry); natural history, four hours (two and a half for zoölogy and one and a half for botany); English or German, as above.

The specific programs for these examinations are carefully delineated each year by ministerial order.[1] In general they follow rather closely upon the programs of the last two years of the secondary course, although a more mature handling of the subject matter is demanded, the breadth of the work in geometry being notably more extensive. In literature, history, geography, ethics, and psychology, these programs show considerable variation of topics from year to year, but in the scientific subjects the scope is necessarily less variable. For example, the history in 1908 was based upon Greek civilization, modern European civilization, contemporary France, and Germany and Italy from 1848 to 1871, subjects drawn from the regular programs of the third, fourth, and fifth years. In geography the topics were: (1) the coasts of France; (2) Italy; (3) the United States; and (4) the British Empire. In ethics and psychology a dozen or fifteen of the books assigned for philosophical reading in the philosophy form of the boys' lycées were suggested to guide the reading of these candidates. The modern language examination is based upon the authors read in the fourth and fifth years of the girls' secondary programs.

The results of these examinations are sent to the Minister, who publishes a list containing the names of the "admissibles." This is ordinarily about twice as long as the final list will be. Every fall, soon after the opening of the academic year, the Minister issues an order in accordance

[1] See *Programmes des conditions d'admission à l'école normale secondaire de Sèvres en* 1908. *Collection Delalain*, no. 63.

with the probable needs of the service, specifying exactly how many places there are for each of the competitive examinations for the coming year. At Sèvres in 1907 and 1908 there were sixteen in letters and fourteen in science, rather above the average for the last few years. In July, 1907, then, thirty-two young women in letters and thirty-one in science were summoned to the school, the government paying the expenses of the railroad trip to Paris and return, and allowing them in addition six francs per day during the examination period. As a result of the oral examination, which is based upon the same subjects as the previous written, the best and most promising candidates are selected for appointment to Sèvres. They must contract to serve in the department of public instruction for at least ten years, or, in case of failure so to do, to reimburse the State at the rate of one thousand francs for each year spent at school.

Once admitted to Sèvres, they are practically supported at government expense for three years, provided of course they keep up their work and pass the necessary examinations. They live at the school with no fees for board, lodging, or instruction, and with all expenses connected therewith defrayed. In distinction from the practice at the primary normal schools, however, they must furnish their own clothing and renew it as occasion requires. The life at the school certainly ought to be delightful. They live here amid pleasant surroundings, in a comfortable, homelike, sympathetic environment, in the midst of eighty or ninety other young women all working like themselves toward a common end, and each one can devote herself unreservedly to preparing for her life work. There is the utmost possible freedom; each student has her own room, which she decorates and arranges according to her taste and where she is as much at home as if she were with her own parents. Judging by the rooms I had the honor of seeing, the life here does not differ very materially from what one would find among the more serious-minded of the students at our American women's colleges. They are at

Life at the School.

liberty to go walking if they choose on pleasant days between six and seven in the evening in groups of not fewer than three, while Thursday afternoons and Sundays are quite free. Mlle. Belugou, the present head of the school, is a charming woman, vitally and socially interested in the personal welfare of the young women committed to her charge, and far enough removed from the traditional convent régime to appreciate that she is dealing with mature young women who have a serious purpose in life and who no longer need to be kept under constant surveillance.

Teaching Staff.

The teaching staff falls into two general classes, the professors and the tutors. The former, twenty-seven in number, and all men, with the exception of the two modern language, and the one sewing teacher, are a very distinguished body, drawn almost entirely from the professors at the Sorbonne and the College of France. They meet their students ordinarily once a week for a lecture which is supposed to last an hour and a half, but which is sometimes extended to nearly twice that length. This work practically forms a regular university course. In addition to this the tutors meet these same classes again during the week in order further to explain the lecture work, to quiz the pupils, to assign papers to be written, and in general to supplement the regular teaching. Since these tutors are all women who live at the school, they are in position to be of constant service to the students. In the letters section there is one tutor for each of the first two years, while in the science there is one for each of the great fields of instruction, mathematics, physics-chemistry, and natural history. In the experimental sciences the tutor is in charge of the laboratory work, which ordinarily occupies one half day per week, and the tutor in natural history arranges frequent botanical excursions in the neighborhood. These five tutors are all *agrégées*, chosen from among the best in the lycées. The two modern language tutors, however, are not of the same rank. They are prospective teachers in the lycées, young women who already possess the certificate for

modern language teaching in secondary schools and who are working toward their *agrégation*. They receive no salary, but live at the school on the same financial basis as the students. The appointment itself carries with it a certain honor, and the holders have considerable time to themselves for study, and even for following courses at the Sorbonne. They have no regular classes, but meet the students at table and in small groups of three or four for conversation in the foreign language. The fact that Sèvres does not attempt to prepare modern language teachers,[1] and that the English and German are studied there purely from the cultural point of view accounts for the difference in status of these teachers as compared with those in letters or science.

For each of the first two years all the letters pupils and all the science pupils have identical programs. The weekly schedule on the following page will show this more in detail.

The work of the first year is relatively easy, thus giving the young women an opportunity to recover from the severe strain they have been working under for several years back, and enabling them to adapt themselves gradually to their new régime. The work of the second year is determined by the program of the examination for the certificate for teaching in girls' secondary schools. At this examination the normal school young women have to compete against students from the outside who have been preparing at private schools or even at the Sorbonne or at provincial universities, but it is perhaps unnecessary to state that the Sèvres pupils usually head the list of successful candidates. In 1907 there were about a hundred competitors for the twenty-five appointments in letters and the sixteen in science,[2] while in

[1] Inasmuch as the certificate for modern language teaching is the same for both men and women, the details for this examination will be found later. *Cf. infra*, pp. 373–374.

[2] *Bull. adm.*, 1906, II., p. 868. As a matter of fact, advantage was taken of the elastic provision in the Ministerial order allowing for an increase in the number of places if the exigencies of the service and worth of the candidates make such a modification desirable, so that there were thirty-one appointments in letters. *Bull. adm.*, 1907, II., p. 367.

GIRLS' NORMAL SCHOOL AT SÈVRES

PROGRAM OF THE FIRST AND SECOND YEARS

	First Year		Second Year	
	Letters	Science	Letters	Science
Monday A. M.	Geography (every two weeks) Elocution	Sewing	Elocution (every two weeks) History	Chemistry
P. M.			English or German Literature	
Tuesday A. M.		Physics	Ethics	Ethics
P. M.	Literature History (first third of the year)			Mathematics
Wednesday A. M.	History (second third of the year)			Botany
P. M.	Grammar	Mathematics	Grammar	
Thursday A. M.	Sewing	Chemistry	History	
Friday A. M.	History	Natural history	Literature	Physics
P. M.	Literature (every two weeks)	English or German Literature (every two weeks)	Geography	English or German Literature (every two weeks)
Saturday A. M.	English or German	Mathematics	English or German	Natural history
P. M.	Psychology	Psychology		Mathematics

1908 the number of applicants was considerably greater with no increase in the number of places. In case a normal school student is not successful, however, she loses her appointment and is obliged to leave the school to begin teaching at once in one of the provincial colleges. The few that are thus unfortunate usually come back after two or three years to try the examination again. If successful this time, they are reappointed for their third year at the school.

Certificate for Teaching in Girls' Secondary Schools.

The examination for the certificate for teaching in girls' secondary schools is a competitive examination,[1] partly written and partly oral, according to the usual fashion. The written examinations are held annually in the department centers; the orals are always at Paris. There are four papers for each of the two sections, letters and science, with four hours allowed for each. The letters papers are: (1) a literary or a grammatical subject; (2) ethics or psychology applied to education; (3) history; (4) a modern language (English, German, Italian, Spanish, or Arab, translation into French and into the language chosen). The science papers are: (1) mathematics; (2) physics and chemistry; (3) natural sciences; (4) literature or ethics. For the oral examination various periods from half an hour to three hours are allowed for preparation of the subject after the topic is assigned. The response is thus in some cases practically a short lecture before the examining jury. The subjects for the letters examination are: (1) reading a selection in French, with historical, grammatical, and literary commentary; (2) development of a topic in history or geography; (3) questions on the subject not assigned in (2); (4) questions on ethics and the methods of education and instruction; (5) interpretation of a modern language selection, followed by questions asked and answered in that language. The oral examination for the science candidates covers the strictly scientific subjects in the written, together with a modern language examination

[1] See Appendix K for the program of this examination for the letters section in 1908.

as in the letters section, and the interpretation of a bit of literature. The various subjects of the examination are not all equally important. They are weighted with certain coefficients, the final mark for each subject being obtained by multiplying the mark actually received on the examination by the coefficient for this particular subject. For the letters section the written and the oral examinations in modern languages are each weighted at three, while for each of the other examinations the coefficient is five. In other words, the modern language is relatively only three fifths as important as is each of the other subjects of the examination. In the science section the mathematics coefficients are five, the physics and chemistry, four, the natural science, three, the literature or ethics, two, and the modern language only one.

Once safely through the examination for the certificate, the student settles down for her final year's work, the preparation for the *agrégation*, the highest diploma required of secondary teachers. At this point the letters students are subdivided into two groups: (1) those preparing for the *agrégation* in literature; and (2) those preparing for the *agrégation* in history. The science students are likewise divided into the mathematics and the natural science groups. Thus each one is able to concentrate her attention almost exclusively upon the subjects of the examination that is awaiting her at the end of the year.

Sèvres: Third Year's Work.

The program for this third year at Sèvres is found on the following page.

In the letters section the students take either literature and grammar, or history and geography, according to the *agrégation* they are seeking, but they have all the other subjects in common; while in the science section, history of art and common law are optional, ethics and literature are pursued by both groups alike, and the line of cleavage runs between the mathematics on the one side, and the physical and natural sciences on the other. The training during this last year is partly a continuation of the lecture method of the two

GIRLS' NORMAL SCHOOL AT SÈVRES

PROGRAM OF THE THIRD YEAR

	Letters	Science
MONDAY A. M.	Ethics	Ethics
P. M.	Elocution (every two weeks) English or German	Chemistry
TUESDAY A. M.	History of art	History of art (optional)
P. M.	Common law History (second half year)	Common law (optional) Physics
WEDNESDAY A.M.	Literature	Mathematics
P. M.	Grammar	
THURSDAY A. M.	History (first third of the year)	
FRIDAY A. M.	Literature Geography	Mathematics Botany
P. M.	English or German	Natural history Literature (every two weeks)
SATURDAY A. M.	History	

previous years and partly a series of lessons prepared by the students for presentation to their classmates following as nearly as possible the general method of procedure they would use before a lycée class. The number of these lectures, for that is practically what they are, naturally depends upon the size of the class and the attitude of the teacher, but probably in no case exceeds four or five during the year, not a very extensive amount of even semi-practical work. The lesson is criticised by the professor in charge of the course immediately following its presentation. As class room experience, this really counts for very little, for its value has been thoroughly emasculated by the absence of real secondary pupils. Some of the students come a little nearer practical teaching in tutoring backward pupils at the near-by lycée at Versailles. Such work, however, is entirely unofficial; it

forms no regular part of the training at the school; and it is entirely a personal matter between the directress of the lycée and the individual students. The latter naturally welcome this opportunity, for not only is it an honor to be selected, but furthermore they are paid by the lycée for the tutoring they do.

Practice Teaching.

The year 1907–1908 witnessed the commencement of real practice teaching, an innovation at Sèvres, but an experience that has already been required for many years at the young men's normal school. The students at Sèvres were sent to the girls' lycées in Paris. The work was begun so late in the year that each student had only about half a dozen lessons. It is consequently impossible to judge of the success of the scheme. It is reasonable to suppose, however, that it will be continued, and that successful experience of this sort will eventually become one of the prerequisities for candidacy for the *agrégation.*

The *Agrégation.*

The examinations for the *agrégation,* like those at the end of the second year for the secondary certificate, are competitive, with a very limited number of appointments.[1] The number of candidates is likewise limited, for only holders of the secondary certificate or the master's degree are eligible, and these in turn, especially as far as the possessors of the secondary certificate are concerned, represent the survival of the fittest after a series of selections. The written examinations are held simultaneously at various centers all over France. For the letters candidates these are three in number, one in ethics or education, four hours, and one in a modern language, two hours, both required of all candidates, with an additional literary paper, four hours, for the letters section, and a history paper, four hours, for the history section. On the science side there is likewise an ex-

[1] For 1908 the number of appointments in letters was thirteen (nine for the letters section, and four for the history section); in science, eleven (five in mathematics, and six in physical and natural sciences). *Bull. adm.*, 1907, II., p. 607.

amination in ethics or education for all candidates, and two papers, one in arithmetic and algebra, and one in geometry and cosmography for the mathematics section. The physical and natural science sections also have two additional papers, one in physics and one in natural science. All the written papers for the science students are four hours in length. The oral examinations, held only at Paris, resemble those for the secondary certificate already described. All the letters candidates have one in a modern language, with twenty minutes for preparation. The special examinations, essentially lessons as they would be taught before a class, consist of one each in literature, ethics, and grammar for the letters section, and one in history and one in geography for the history section. From one to three hours are allowed for the preparation of each of these lessons, and a half hour for the presentation. The mathematics candidates have one lesson in each of the two groups of subjects indicated for their written examination; while the physical and natural science candidates have one in physics, one in chemistry, and one in natural science. They have three hours apiece for the preparation, and three quarters of an hour for the presentation of these topics.

Refinement of the Product.

Such, in brief, is the preparation for teaching in girls' secondary schools. The examinations have occupied a relatively large place in this account, but they likewise occupy a relatively large and important place in the preparation itself. The prospective teacher is constantly confronted by examinations; she meets them at every turn, with every one carefully prescribed as to eligibility conditions, requirements, and scope. To one who is accustomed to the free and easy ways of entering the teaching ranks in America, the whole system seems remarkably formal and unnecessarily complicated, but the survivors represent a highly refined product, one which on the academic side, at least, could with difficulty be improved upon. We have seen that the specialization has gradually become narrower and narrower as the student advanced, until at length it is confined almost exclusively to the subjects she intends to teach.

Such specialization is of course possible only in a highly organized system under a central control like that which exists in France, but it certainly produces a body of teachers of a high degree of intelligence and eminently qualified for the work they have to do, a body of teachers who must bear the brunt of the burden in realizing the conviction that M. Lavisse had in mind when he said:[1] "Thus France has need of all her children. The time is passed when we can afford to scorn the assistance of the half of France."

[1] LAVISSE, Address at the Trocadéro, May, 1907, in *L'enseignement des jeunes filles*, 1907, I., p. 287.

CHAPTER XV

THE HIGHER NORMAL SCHOOL AND THE TRAINING OF TEACHERS

ALTHOUGH it is now almost exactly one hundred years since the professional training of secondary teachers has been a reality in France, even at the time of the Normal School of the Convention, this idea was by no means new. As early as 1645 the rector of the university, Dumonstier, had proposed to "train up at university expense a certain number of promising children (*enfants de bonne esperance*) who could thereby become regents or preceptors,"[1] but the suggestion does not appear even to have been discussed. The expulsion of the Jesuits from France in 1762, depriving the country as it did of a large part of its secondary teaching force, necessitated a thorough reorganization of the existing educational system, and plans for such a reform were reported in several of the provincial parliaments.[2] Rolland, in following out the suggestions of Abbé Pélissier, was especially specific in his demands for the establishment of institutions in connection with each university for the preparation of young men for the teaching profession.[3] The most that resulted from this

Beginnings in France.

[1] JOURDAIN, *Histoire de l'Université de Paris*, p. 157. DUPUY, *Le centenaire de l'école normale*, p. 8, cites other more successful efforts during the seventeenth century.

[2] *Cf.* LA CHALOTAIS, *Plan d'éducation ou d'études pour la jeunesse* [in Brittany], 1763.

GUYTON DE MORVEAU, *Mémoire sur l'éducation publique, avec le prospectus d'un collège suivant les principes de cet ouvrage* [in Burgundy], 1764.

ROLLAND, *Compte rendu aux Chambres assemblées*, Paris, 1768.

[3] *Ibid.*, pp. 59–68.

general interest was the establishment of *agrégations* in philosophy, rhetoric, and grammar in 1766. In the meantime the training school idea had already become firmly established on the other side of the Rhine, thanks to the efforts of Francke, Felbiger, Basedow, and their successors, whence it was destined to exert a powerful influence on the subsequent plans of the Convention leaders. M. Dupuy[1] has traced very clearly and convincingly the channels through which this Teutonic influence spread to France and finally bore fruit in the Normal School of the year III., or Normal School of the Convention. This first real but short-lived normal school in France was in existence only through the spring months of 1795,[2] and its formative influence was practicably negligible. Although the present school held a centennial celebration in 1895, this was really a little premature, for the only thing in common between the existing institution and the revolutionary experiment was the name. The earlier school was intended to train teachers of teachers, but at its close left nothing to posterity but a tradition.

The present Higher Normal School, to give its official title, in reality dates from Napoleon's founding of the University.

The School of the First Empire.

The decree of 1808[3] provided for "the establishment of a normal boarding school intended to accommodate as many as three hundred young men, who should there be trained in the art of teaching the letters and the sciences." Thus Napoleon, with characteristic foresight, planned for training the teachers and administrative officers of the educational institutions called into existence in consequence of this same imperial fiat. In some respects the new school which was opened in 1810 resembled the school of the present day rather than the one in existence before the reform of 1903, for it was closely affiliated with the College of France, the *École Polytechnique*, and the Natural History Museum, and in 1810 was made an

[1] DUPUY, *op. cit.*, pp. 22–32.
[2] *Cf. supra*, p. 62.
[3] *Décret*, March 17, 1808, art. 110.

annex of the faculties. The students of the school registered with and followed the courses of three professors in the faculty of arts or the faculty of science, according to the subjects they were preparing to teach.[1] This university work was supplemented by conferences and quizzes at the school in charge of the tutors, which assumed, during the last months of the course, the form of lectures by the students themselves, intended to demonstrate their teaching ability. Under this plan the academic training was chiefly in the hands of the professors of the faculties at the university, while the professional was intrusted to the tutors at the school itself. The academic standard of the school was considerably lower than it is at present, for in those early days the students came up for the bachelor's examination at the end of the first year, and for the master's at the end of the second, failure in the former case entailing forfeiture of the appointment. The ten best students were allowed to remain a third year, in order still further to perfect themselves for their profession. They were immediately given the title of *agrégé*, ordinarily granted only to the lower masters in the lycées and the regents of the colleges after competitive examination, and they served as tutors for the other classes. During the two years of the course the student lived at the school at government expense. This included board, lodging, and ordinary university charges, but examination and diploma fees as well as expenses for books, paper, ink, and pens were at their own charge. This, then, was the real beginning of the present school. The entrance was entirely dependent upon competitive examination; the function of the school was to recruit the teaching force in the secondary schools; and the number of intrants was determined each year in accordance with the probable needs of the lycées and the colleges. These characteristics have been retained until the present day.

Although the Napoleonic university would have been shorn of much of its power had the ordinance of February,

[1] *Statut*, March 30, 1810, § III. *Recueil de lois et règlements concernant l'instruction publique*, V., pp. 172–175.

1815, ever been enforced, the Normal School was left in undisturbed possession of its former prerogatives. Its course would even have been augmented by an additional year, the *agrégation* being conferred by the Royal Council of Public Instruction after examination at the completion of the third year. The value of this distinction, nevertheless, had been considerably cheapened by the abolition of the competitive examination, especially since it could also be granted to ordinary teachers in the lycées and colleges after five years of service provided they were willing to assume the obligations toward the university that were imposed upon the normal school students, that is, to contract to teach for ten years.[1] Toward the close of 1815, however, there was a radical change in the course, whereby it was definitely lengthened to three years, with the subject matter of the first year common to letters and science students alike. This extra year in a way preceded the old course, for the work consisted in a review of the ground previously covered in the college (the lycées at that time were called royal colleges), together with a course in logic, and one in mathematics. The normal students were required to pass the baccalaureate in letters at the end of the first year; those in science to pass the baccalaureate in science at the end of the second year (the letters degree was prerequisite); and all had to pass the master's examination at the end of the third year. The privilege of the former complementary year was still retained as an additional incentive for the ten best students. The school for the first time appears to stand forth as a separate institution, and to assume some of that independence that characterized its position for the last half of the nineteenth century. The courses given by the professors of the two university faculties play but a relatively small part in the work of the school, the greater part of the instruction being given at the school itself, and under the control of the director. In those days the school year was long and strenuous, for "it opened the second day of Novem-

Under the Restoration.

[1] *Arrêté*, Nov. 30, 1814, *ibid.*, p. 518.

ber and continued without interruption until the fifteenth of September." Even during the short vacation which followed there was little chance of the students acquiring habits of indolence. Before they left the school, they were given a list of topics for the fourth quarter upon which they would be examined on their return at the opening of the year.[1] The internal regulations of this same period,[2] which reproduced almost exactly the prescriptions of 1810, are interesting at this distance, but they must have been decidedly irksome to the young men of eighteen or twenty who were subjected to them.

§ 42. "When a student has obtained permission to go to another's room, the door must remain open all the time he is there."

§ 43. "While the students are in their rooms, the key must be on the outside" (as the regulation of 1810 added, "in order that the surveillant may enter as often as he deems it necessary").

§ 44. "There is never a fire in the private rooms; but during the severe weather the students may study in the hall of their division which is warmed by a stove."

§ 56. "The students are allowed to go out alone once a month." (This last indicates enormous progress since 1810, for then such permission was never granted.)

During this same period the letters students came up for the master's degree at the end of the second year, and shortly afterward, 1821, the third year for these same students became specifically the preparation for the *agrégation*. There were then three orders: (1) in science; (2) in the advanced classes in letters; and (3) in grammar. For the first two of these competitions, the master's degree in the corresponding faculty was prerequisite, while for the *agrégation* in grammar the simple bachelor's degree sufficed.

The *Agrégation*.

One of the early acts of the ultra-catholic reaction that grew stronger and stronger as the third decade of the nine-

[1] *Règlement*, Dec. 5, 1815, *ibid.*, VI., p. 75.

[2] *Règlement*, Dec. 14, 1815, *ibid.*, VI., pp. 75–90.

teenth century progressed was the suppression of the normal school. The royal ordinance says with legal bluntness: "The great Normal School at Paris is suppressed; it will be replaced by the partial normal schools of the academies."[1] These so-called partial normal schools which had been ordered established the year before in Paris and at the various academy seats were nothing more than appendages of the colleges. The number of students in each "school" was limited to eight, with a four-year course which in reality could have carried the pupils but little beyond the ordinary course, for pupils were eligible to compete for the appointments after completing the third form. They were to remain two years longer in the capacity of study-room masters. The inadequacy of this preparation, especially in contrast with the work that had been done at the Paris school, at once becomes apparent, so it is not surprising that after a brief interval, which in reality was no experiment at all, for the schools were not put in practice, a substitute for the normal school was established in the "preparatory school" attached to the Collège Louis-le-Grand in Paris.[2] Placed under the direction of the head master of the college, this school reproduced some of the characteristics of the earlier school of 1810, for the course was practically reduced to two years, and the major part of the instruction was given at the university. Four years later under the new government, its old name was restored, to be changed in 1845 to its present official title, Higher Normal School.

Suppression and Re-creation of the School.

Shortly after the advent of the July Monarchy in 1830, the school was thoroughly reorganized and soon assumed the general type form that existed prior to 1903. The length of the regular course was fixed at three years; the courses of the literary and scientific sections were distinct from the outset; the master's examination came ordinarily at the conclusion

Assumes a Permanent Form.

[1] *Ordonnance du Roi*, Sept. 6, 1822. *Recueil de lois et règlemens*, VII., p. 205.

[2] *Arrêté*, Sept. 5, 1826. *Recueil de lois et règlemens*, VIII., p. 79.

of the first year's work, although the student was allowed until the end of the second year in which to pass it; the third year constituted a special preparation for the particular *agrégation* the student had in mind together with a kind of practical work. Since 1828 there had been four orders of *agrégation:* (1) letters; (2) philosophy; (3) grammar; and (4) sciences. The *agrégation* in history was added at this time, and two years later the science *agrégation* was resolved into the mathematics and the physics-natural science divisions. After the reform of 1830, when the school once more became independent, its relations with the faculties became more and more attenuated, particularly as regards the letters section, although this transition took place more slowly in the case of the scientific students, largely on account of the inadequate opportunities at the school for instruction of that character. A noteworthy innovation was introduced in the spring of 1839.[1] The "practical work" of 1830 became a reality, and the third-year students were sent out into the lycées for six or eight weeks of contact with real school conditions. How much actual teaching they did, we have no means of knowing, but the same order of the Council authorized them to act as substitutes for the regular teachers who were detached for other service during the period of the general prize competitions. Another innovation that followed a few years later was the beginning of modern language instruction, a chair of German being established in 1841 and one in English in 1846. The reactionary period about the middle of the nineteenth century, marked by the passage of the odious Falloux Law, was fraught with significant modifications in the régime of the normal school. Much of the ground gained since 1830 was rapidly lost. The change of ministry in 1856, however, brought a turn for the better. Things gradually resumed their former shape, so that with the restoration of the *agrégation* in philosophy in 1863 (the decree of 1852 had reduced the number of *agrégations* to

[1] *Arrêté*, Aug. 14, 1838, *Bulletin universitaire*, 1838, p. 353.

two, one for letters and the other for science) most of the old conditions were re-established. In 1869 the passage of the master's examination became a definite requirement for the end of the first year, and at the same time the normal graduates were relieved of their previous requirement of the three-year teaching period before being eligible to compete for the *agrégation*. This last examination was thrown open to them immediately upon completing their course at the school. From this period until the reorganization in 1903 the school was in a state of relatively stable equilibrium. The rigorous discipline was gradually modified, and the régime of the school became comparatively liberal.

In the meantime the Higher Normal School had come to occupy a unique position in the educational world. Germany was definitely training secondary teachers, but training them professionally, at least, in a few selected *Gymnasien*, while England and the United States were doing little or nothing of a similar nature, at least nothing worthy to be ranked with the efforts of Germany and France. Here, then, was a secondary normal school that combined within its own walls the high specialized academic training of the German universities with the subsequent purely professional training. To a large extent, however, it was paralleling the work of the Sorbonne, although it was handling a smaller and more select class of students. Its courses prepared for the master's degree, the university courses prepared for the master's degree; the normal school prepared for the *agrégation* examinations, the university did likewise. Under the circumstances it is hardly surprising that the Parliament began to question the necessity of continuing an institution that was costing the State more than half a million francs per year.[1] This parallelism had not been of long standing, because for many years the normal school had borne the brunt of the burden of preparing young men for the master's degree and for the *agrégation*, but from the period of the university

Signs of Reform.

[1] *Cf. Rapport du budget*, 1903, p. 82.

reform of the early eighties, especially since the two score yearly graduates of the school were no longer sufficient to supply the needs of the rapidly expanding system of secondary education, all this had begun to change. The opportunities at the Sorbonne widened; courses were established there which prepared directly for the examinations for the master's degrees and the *agrégations;* the university students often competed successfully against the normal students, so much so that in 1901 the former won thirty-nine of the eighty *agrégations* as against only twenty-two for the latter,[1] whereas when the preparation of these same students began three years before that time the most promising had been appointed to the normal school, while many of their unsuccessful rivals had enrolled in the university courses. In the interim changes had naturally taken place, so that at the time of the *agrégation* examination the conditions were somewhat reversed. Even then the normal students won out, as they always do, in the per cent of successful candidates. For some years previous there had been a decided difference of opinion in the teaching ranks themselves as to the efficacy of professional training. Indeed no less distinguished a person than Fustel de Coulanges himself, the director of the normal school from 1880 to 1883, had declared: "It is useless to learn to teach." The testimony of his successor, the late director of the school before the Ribot Commission in 1899, reflected a somewhat similar feeling, although M. Perrot couched his conviction in more veiled terms.[2] In view of such expressions on the part of its directors, it is not surprising that the normal school was giving itself almost exclusively over to purely academic culture, the professional training having become practically insignificant. The six or eight weeks of lycée experience of 1838 had long since been reduced to a paltry two weeks, and even this was most superficially done.

[1] LANSON, *La réorganisation de l'école normale*, in *Revue de Paris*, Dec. 1, 1903, p. 525.

[2] *Enquête sur l'enseignement secondaire*, I., p. 140.

The student ordinarily selected one of his former teachers, who perhaps might be quite incompetent to direct a beginner. Some of this work was undoubtedly very skilfully administered, while on the other hand some of the teachers started the normal student in his task and then took advantage of his presence to enjoy a vacation for the rest of the fortnight, merely returning in time to gather a little material for a report to the head master on the character of the neophyte's efforts. The criticism against this generally recognized lack of real professional training was crystallized in one of the conclusions of the Ribot Commission as reported to and adopted by the Chamber of Deputies in 1902. "The higher normal school will be organized and directed in such manner as to be not only a school for advanced study but a veritable pedagogical institution."[1] The internal modification of the courses of instruction for the year 1902–1903[2] came too late to save the identity of the school. The presidential decree of November, 1903, fused it into the University of Paris, thereby putting an end to a rivalry that was rapidly becoming more and more acute and that boded no good for academic harmony in the secondary teaching profession.

The Normal School a Professional School of the University.

By the terms of this decree, the normal school was made an integral part of the university, subject to the authority of the vice-rector, although still retaining its own independent budget. Its director and assistant director, one of whom must be a letters man and the other a science man, were given seats in the corresponding faculties of the university. This amalgamation with the university and the strengthening of the professional side of the work was not so much an innovation as a return to the original plans of 1795 and 1808, from which the school had long since widely departed. The reform was less significant for the science students than for

[1] *Enquête sur l'enseignement secondaire*, VI., p. 81, paragraph 21.

[2] See Extract from a report by M. PERROT to the Minister of Public Instruction, in *Revue internationale de l'enseignement*, 1902, II., pp. 516–523.

the letters men, for the former had long followed courses at the Sorbonne, the work at the school being rather more complementary, as it is to-day. The immediate most apparent effects were the sudden increase in the number of students, thirty-two for letters and twenty for science as against twenty and thirteen respectively in previous years, and the removal of the greater part of the instruction from the school itself to the lecture rooms of the university. The latter has since given occasion for the appellation "the college" and even "the hotel" of the scholars of the university. The former is certainly the more suggestive title as far as Anglo-Saxon readers are concerned, for the present organization corresponds fairly well to the external organization of the English college. Unfortunately there is room at the school for only one hundred and five students, the others who are forced to live outside receiving an allowance from the State of twelve hundred francs per year, the estimated cost of board and lodging within the school. The first-year men are given the choice in the order of rating at the admission examination between living at the school and living outside, that is, until all the vacancies are filled. Those toward the bottom of the list thus have no choice in the matter.

Admission to the School.

Admission to the school is solely by competitive examination, the number of places being determined each year by the Minister of Public Instruction. This number has been the same for the last two years, thirty-five for letters and twenty-two for science.[1] The examination, divided as ordinarily into the written and the oral part, is identical with the scholarship competition for the master's degree. As commonly happens, the written examinations are held simultaneously in each of the academy seats of the country, but the successful candidates are obliged to come to Paris for the oral test. The first on the list are appointed to the normal school, the next in order receiving scholarship appointments during their year of study for the master's degree. The scholarships

[1] *Bull. adm.*, 1908, I., p. 319.

may be whole, three quarters, or half, on the basis of twelve hundred francs, the amount of award in each case depending upon the financial standing of the candidate's family. A candidate must be not less than eighteen nor more than twenty-four years of age and must hold the bachelor's degree. As a matter of fact, so keen is the competition for appointment that in practice considerably more than this degree is required. Certain lycées have special graduate classes, so to speak, that fit expressly for this examination. For the letters section this is known as the higher rhetoric form, a name derived from the former appellation of the present first form; in the science section it is called the special mathematics form. The students remain in these forms one, two, and sometimes three and even four years,[1] for it is the exception for one to be successful after only one year in these special classes. Formerly it was not at all unusual for prospective normal school candidates to pass the master's examination during this period of preparation so that they had a considerable advantage over their comrades at the very outset of the school course. Under the present régime and with the new program of the master's examination that went into effect in July, 1908, this is hardly likely to continue.

For the letters section the written examination includes French, translations from and into Latin, philosophy, history, and one of the three following: a Greek translation, a paper in a modern language (English, German, Italian, Spanish, Russian, or Arabic), and a paper in mathematics and physics. The three papers in Latin and Greek are each allowed four hours, the others six hours apiece. The science candidates have a choice between two series of papers,—the examinations in mathematics (based upon a special program, including algebra, analytic geometry, vector analysis, something of the calculus, and mechanics), French, and modern languages (two translations chosen from Latin, English, and German), with four hours for the

Written Examinations.

[1] See article by a former normal student in the *Revue internationale de l'enseignement*, 1907, I., pp. 230–240.

first, three for the second, and two for the third, being common to both series. In addition, one series has a second paper on mathematics and one on physics, both six-hour tests and both based upon the topics of the regular lycée course; while the other series has papers on physics, chemistry, and natural sciences, drawn from a special program. The physics lasts six hours, the chemistry and natural science four hours each. The relative values of studies are still further provided for in the system of coefficients to which reference has already been made.[1] In the written examination in letters each Latin paper is valued at two, and each of the others at three; in the science the coefficients in one series vary from one for the French essay to seven for the physics, and in the other from one for the French essay to five for the physics. In any case these written examinations constitute a long and exhausting test covering a total duration of from twenty-one to thirty-two hours.

Only those who pass the written examinations are admitted to the oral examinations at Paris. Each candidate furthermore covenants to reimburse the State for the amount of his scholarship in case through any fault of his own he fails to serve ten years in the service of public instruction. The oral examination in letters includes a series common to all, consisting of French, Latin, philosophy, modern history, and a modern language (this latter must be different from the one chosen for the written), and a series following along the lines of the three Latin sections of the baccalaureate. The examination for the Latin-Greek section covers Greek and the history of Greece and Rome; that for the Latin-modern language includes the same ancient history, together with the modern language submitted for the written examination; that for the Latin-science bears upon natural science and physics. For the science students the oral examination comprises: mathematics, physics, and chemistry, and either (*a*) additional mathematics or (*b*) natural science. In the letters examination the coefficients for history and physics

[1] *Cf. supra*, p. 340.

are one, and for each of the other subjects two; while in the science examination they vary in one group from one for the additional mathematics to eight for the ordinary mathematics, and in the other from three for the chemistry to five for the physics.

Prerogatives of the Scholarship Holders.

The scholarships for the master's degree[1] in letters, philosophy, or history are granted for one year; in modern languages and in science for two years, although in the latter case it is often possible to obtain an extension for a third year. At the expiration of this scholarship period the students that gain the master's degree are granted, without further examination, a scholarship for the diploma of higher studies[1] (*diplôme d'études supérieures*). This varies in amount from fifteen hundred to six hundred francs, and likewise runs for a year. If the candidate passes this examination he receives a scholarship for the *agrégation*[1] as before without further competition. This also is granted for a year, but may be renewed in the case of students who pass the written part but fail on the oral. These last two scholarships, for the diploma and the *agrégation*, are sometimes granted to students holding the master's degree who did not enjoy a scholarship for that first advanced degree. Under this system, once a young man succeeds in the competition for the master's scholarship, he is given every possible encouragement and all reasonable State support in order to enable him to continue his studies until he wins the *agrégation*. Not every one reaches this goal, for the residuum becomes finer and finer as the coarser products are eliminated in the process. With only the master's degree, however, he is eligible for appointment in a college, and it is still possible for him to

[1] Aside from the normal students, it is ordinarily possible for these scholars to pursue their work in Paris or in any of the provincial universities that they may indicate. Of course the great majority of them are enrolled at the University of Paris. The whole system has given rise to considerable recrimination on the part of the provincial institutions on the ground that the Sorbonne is unduly favored. Most of these contentions are ill advised, although prompted by a pardonable pride in the local university.

pass the other two barriers. Every year men are succeeding in this. After two or three failures his chances of success become smaller and smaller, until finally he gives up the fight and resigns himself to his lot, never able to become a regular professor in a lycée, but still with the whole range of the college field before him, and with the possibility of reaching an acting professorship in a lycée.

The successful candidates for the normal school seldom begin their course immediately. They almost invariably arrange to work off one of the two years of military service now required of all able-bodied male citizens. Formerly those preparing for certain professional careers were compelled to serve only a single year in the army in place of the three years ordinarily demanded, but since the reduction of the service to two years in 1904 this amount has been rigorously exacted from all. The first year the normal student spends as an ordinary soldier in the ranks. During that time, in common with his fellows from the military and the polytechnic schools, he receives additional instruction destined to prepare him to become an officer. He has a special examination to pass at the end of this year. Throughout his three years at the school this same technical military instruction is carried on one hour a week, supplemented by numerous excursions into the country on Sundays in summer for topographical and other field work of a practical nature. Then at the end of the course there is another examination along lines similar to the former one. Those who are successful here receive officers' appointments. Thus, with their standing as reserve officers, this second year of service is considerably more agreeable than it would otherwise be. The arrangement, however, has been made not so much from the point of view of the normal students as from that of the actual needs of the service.

Military Service.

With their first year of military service behind them, the students prepare for the real work of the school; barring accidents, three years of delightful association in an intel-

lectual environment, such an experience as no other institution in France affords. Here, under the present liberal régime, the students are treated like young men capable of looking out for themselves, a freedom that stands out in striking contrast to the system of repression they have just passed through in the lycées. Twenty-five years ago at the normal school everything was conducted under the strictest military régime. Long after the old conditions had changed, however, the former regulations were still officially in force, only to be honored more in the breach than in the observance. Since the advent of the present administration, the students are no longer required to obtain permission in order to go outside the school precincts. The gates are locked at one o'clock in the morning and after that hour the belated theatre-goer has the alternative of climbing the high iron fence or of spending the night outside.

Life at the School.

Save for the opportunity of eating and sleeping at the school, the rights and privileges of the internes are in no respect different from those of the externes. The latter may even arrange to take their meals in the common hall if they so desire, and thus derive practically all the advantages of the life in common at the school, which is really its salient characteristic. The spirit of comradeship is further fostered by a system of study rooms called in the school vernacular "*tournes.*" Each of these holds from two to five fellows, drawn together by common interests or congenial natures, each one with his own study table, books, and easy-chair. The alcohol lamp with its accompanying row of cups and saucers half hidden by a curtain are strongly suggestive of one's own college days. The couch in the corner, the pictures and plaster casts upon the walls still further enhance the illusion, so that if some genie were suddenly to whisk an American into one of these rooms, he would readily believe himself in one of his own college dormitories. The sleeping accommodations are quite apart, for the students sleep in the traditional fashion that still prevails in the lycées already

described. The *tournes* of each class are grouped together, the rooms being assigned by lot at the beginning of the year. Those of the third-year men, at the top of the building, farthest removed from the noise of the street, go by the familiar title of the "palace of the cubes." The first-year student is a "conscript," the second-year a "square" (that is, the second power), and the third-year a "cube" (that is, the third power), while the surveillant, although from no spirit of animosity, is commonly known as the "*caiman.*" With three years of such familiar association, it is small wonder that the normal students are bound together by an *esprit de corps* that grows even stronger with the gathering years. Many of the graduates feared that the recent reform would tend to weaken these old bonds, but except for widening the circle a little, their fears do not seem to have been realized.

Aside from the personal contact with his fellows and with his professors, one of the highest-prized privileges of a normal student is his library opportunities. He has within his reach a magnificent collection of some 200,000 books among which he can browse to his heart's desire. In the morning it is reserved for the professors and the former students, but all the afternoon it is open for the almost unrestricted use of the student body. Each one seeks out his own book on the shelves, and thus gains the inspiration that only such contact with books can give.

The First Year.

The work of the first year reproduces exactly that which is required from the ordinary possessors of the master's scholarships, save that those actually enrolled in the school enjoy the added distinction and privilege that always attach to the normal school students. They are required to pass the master's examination at the end of the first year, and to gain the diploma at the end of the second. Failure at either point means exclusion from the school just as a similar failure in the case of the outside students working for the same degree entails discontinuance of the scholarship. In France the State is generous with its scholarships, but it bestows them from no

PROGRAM OF THE EXAMINATION FOR THE MASTER'S DEGREE (LETTERS)[1]

	Philosophy	History and Geography	Classic Languages and Literature	Modern Languages and Literature
Written	1. Latin translation. 3 hrs. II 2. Philosophy. A choice among four subjects: general philosophy, psychology, logic and scientific method, ethics and sociology. 3 hrs. II 3. History of philosophy. 4 hrs. II 4. Any university course, at the choice of the candidate. 3 hrs. I	1. Latin translation. 3 hrs. II 2. History. A choice among five subjects: ancient history, history of the Middle Ages, modern history, contemporary history, physical geography. 4 hrs. II 3. Any university course, at the choice of the candidate. 4 hrs. I 4. Practical exercise in epigraphy or cartography. In the former the text will be taken from Greek antiquity, Roman antiquity, the Middle Ages, or modern times, according to the choice of the candidate. 3 hrs. II	1. Greek translation, with literary and grammatical commentary. 4 hrs. I 2. Latin translation, with literary and grammatical commentary. 4 hrs. I 3. French essay. 4 hrs. I The use of a dictionary is authorised.	1. Latin translation. 3 hrs. I 2. Translation and grammatical commentary, modern language, chosen by the candidate. Commentary written in the modern language. 4 hrs. II 3. Modern language theme. 3 hrs. II 4. French essay. 4 hrs. I
Oral	1. General philosophy I 2. Psychology. I 3. Logic and scientific method. I 4. Ethics and sociology. I 5. Interpretation of two philosophical texts from two languages chosen by the candidate. II 6. Any university course, at the choice of the candidate. I 7. Analysis of a philosophical text in either English or German at the choice of the candidate. I	1. Ancient history. I 2. History of the Middle Ages. I 3. Modern history. I 4. Contemporary history. I 5. Geography. II 6. Any university course, at the choice of the candidate. I 7. Questions on an historical or geographical work, chosen by the candidate and accepted by the faculty at beginning of second half year. I 8. Analysis of an historical or geographical text in either English or German at the choice of the candidate. I	1. Literary and grammatical interpretation of a Greek text. I 2. Literary and grammatical interpretation of a Latin text. I 3. Literary and grammatical interpretation of a French text. I 4. Any classical course, at the choice of the candidate. I 5. Any university course, at the choice of the candidate. I 6. Analysis of a text, literature, philology, criticism, or literary history from a modern language chosen by the candidate. I	1. Interpretation of a modern language text, together with a literary and grammatical commentary in the foreign language. II 2. Literary history of the modern language. I 3. Interpretation of a text from modern French literature. I 4. Any university course, at the choice of the candidate. I 5. Translation of an easy selection from the second modern language chosen by the candidate. I

The Roman numerals I and II indicate the coefficient values of the various examinations. See *supra*, p. 340.
Each oral examination lasts fifteen minutes. The candidate has fifteen minutes to study each text to be interpreted, analyzed, or translated.

[1] *Programmes de la licence ès lettres* 1908–1909. *Collection Delalain*, no. 51. bis, pp. 8–13.

eleemosynary motive. It grants them freely, but it demands success from its beneficiaries, and it exacts a return in intellectual service after the academic goals have been reached. The first year's work, then, is determined entirely by the requirements for the master's degree. The normal students live at the school, but have all their courses at the university. Until the passing of the baccalaureate all their work had been more or less general. To be sure, at the beginning of the sixth form, the boy had chosen for or against Latin; again, on completing the first cycle, he had another decision to make, but all the pupils had had mathematics, and all had had some other science work. Now, as the preparation for the master's degree begins in earnest, the scope begins to narrow still more. Not only have the letters men dropped all the scientific subjects, but they are grouped in one of the four subdivisions: philosophy, history and geography, classic languages and literatures, and modern languages and literatures. Latin and at least one modern language in addition to the student's special interest are required of all these candidates. The importance still attached to the Latin is shown by the fact that in the philosophy, in the history and the geography, and in the modern language series, the candidates must receive a mark of at least eight on a scale of twenty in the Latin translation in order to be admitted to the oral examinations, whereas in the other subjects this minimum is regularly fixed at five. Furthermore an average of half the maximum at the written examination is required of all.

These examinations, both written and oral, are held in Paris and in the other university centers in July and in November. The program for the letters students on the preceding page will give a clearer idea of the scope of the examination and its general character.

The lists of authors upon which most of the examinations in letters are based are drawn up by each faculty every two years.[1]

[1] For the philosophy series at the University of Paris, 1908–1909, the English authors are: BERKELEY, *Treatise on the principles of human knowledge;*

The master of science degree is still delivered under the regulations of 1896, which have meanwhile been only slightly modified. Although the subjects for which this degree is granted are numerous, varying considerably in the different universities, for teaching purposes they fall into three general groups, according to the subjects of instruction in the secondary schools: (1) differential and integral calculus, rational mechanics, and either general physics, or another mathematical subject; (2) general physics, general chemistry, and either mineralogy or one of a series of general science subjects; (3) zoölogy or general physiology, botany, and geology. The examinations are conducted in the same general way as those for letters, except that after the written examination is inserted a practical test which must be passed in order to be admitted to the oral.

Master of Science Degree.

The second year's work of the normal student is likewise determined by conditions entirely outside the school. This is the period during which he acquires his so-called "scientific initiation," of which he gives evidence in the examination for the diploma of higher study at the end of the year. There is a beginning of pure pedagogy, however, at the normal school, represented by a one hour a week lecture course on the "Origin, development, and present situation of secondary education in France," given by M. Durkheim, professor of education at the University of Paris. The few weeks between December and Easter do not allow a very thorough treatment of such an extensive subject, but the course marks a phase of theoretical instruction that was entirely lacking in the French secondary teacher's preparation until the recent organization of the normal school. After Easter in 1907–1908, the course

The Second Year.

and HUME, *Treatise on human nature*, I., pt. III. For the modern language series the English authors are: SHAKESPEARE, *Othello*; MILTON, *Comus*; JOHNSON, *Lives of the English poets* (Dryden, Swift); SHERIDAN, *The critic*; WORDSWORTH, *The Excursion*, Book I.; ELIOT, *Scenes from clerical life*; TENNYSON, *Selections* (Rowe and Webb); HAWTHORNE, *The house of the seven gables*.

was continued by a series of seven lectures on more special topics by men particularly well qualified to handle the subjects discussed. The questions under consideration were: "The relation between pedagogy and psychology"; "The rôle of attention in education"; two lectures on school hygiene; two on the organization of public instruction in general and on the secondary education of boys in particular; and one on coöperation among secondary teachers. The chief weakness about this theoretical work is that as yet the official regulations content themselves merely with requiring attendance upon these lectures. In view of the strenuous nature of the work actually required for the examinations, especially where so much is controlled by examinations as in France, it would be safe to assume that the students do not devote much consideration to the questions outside the lecture room. Certainly the student attitude in this course differs markedly from what one finds in the other work at the school.

The rest of this second year's work is made up of a number of university courses chosen by the individual student in accordance with his special needs. He is now actually started on the preparation for the *agrégation*, but he must gain his diploma at the end of the year. This diploma which has proved its worth in the history department since 1895, but has been required in the other departments of letters and science for only five years, follows the same grouping as already outlined for the master's examination. The year's work introduces the students to the use of a scientific method, thereby assuring a higher standard of scholarship in the future teachers than was guaranteed by the simple master's degree, and at the same time allowing the *agrégation* jury to concentrate the attention upon the candidate's capabilities from the teaching point of view. In the three science groups the diploma is based upon two requirements: (1) an original piece of scientific work written under the general supervision of a university professor, and (2) an oral examination on this

Diploma of Higher Study.

same work, together with certain topics taken from the general field, announced three months in advance. In letters the philosophy examination follows the same method of procedure.[1] In classics three texts, Greek, Latin, and French, are selected for extended study; a question suggested by one of these forms the basis of a written memoir; a passage from each text is assigned at the oral examination for interpretation; and finally philology, paleography, comparative grammar, or some other similar limited field of literary study selected by the candidate provides the subject matter for a searching questioning. In modern languages, besides the written memoir, its defence, and the interpretation of the author previously chosen by the student, there is also a grammatical and literary interpretation of a passage from an author of the Middle Ages or the Renaissance period. The student has ample time in which to prepare for this, for, as happens in other similar cases, he makes his own choice of author, subject of course to faculty approval. In history or geography the diploma has a fourfold basis: (1) the memoir and its discussion; (2) discussion of a question in history and one in geography, assigned by the faculty three months in advance and selected from other fields than the one treated in the written paper; (3) criticism of an historical or geographical text chosen by the candidate with the approval of the faculty; and (4) a series of questions on archeology, epigraphy, paleography, diplomacy, bibliography, or general geography, the choice of the field being left to the candidate. The examinations in history and geography are by far the most comprehensive and searching, a condition probably due in no small measure to modifications in accordance with lengthening experience. It must be somewhat awe-inspiring for the candidates, as I saw them summoned before a jury of university professors, each one of whom was distinguished in some particular field of investigation, and

[1] The record of thesis subjects, texts for explanation, and marks for the diploma in philosophy in 1908, Appendix L, will give a clearer idea of the character of this particular examination.

plied with questions by these same specialists. Occasionally a candidate appears who stands his ground valiantly or retreats in good order before superior forces. The difficulty of the ordeal varies greatly in the different subjects, and depends still more upon the personal characteristics of the individual men. In any case it is no easy task for the student.

The third year is the final preparation for the *agrégation*, the period which a former Minister of Public Instruction was pleased to call the period of "general culture within a definite field of knowledge," but which is rather devoted to widening and deepening the knowledge of the subjects already covered several times before, constantly keeping in mind the fact that these young men are planning to teach these same branches. No one student has many subjects, for he confines himself exclusively to his professional work. Part of the time is devoted to lectures by the professors, but the major part is taken up with lessons given by the pupils themselves.

The Third Year.

During this year there is still some general class work at the Sorbonne, but nearly all the lessons by the students are given at the normal school itself. These latter, which are in reality little more than lectures, form a decidedly artificial kind of practice teaching. They unquestionably give the student good training in organizing and presenting his material, but a most essential factor in the teaching process, somebody to teach, is quite lacking. To be sure, the lectures are delivered before the professor and the student's classmates, but this audience is hardly comparable to a class of ten to fifty boys in a secondary school. The element of discipline is entirely lacking, while the apperceptive bases of the two groups of individuals are widely different. Nevertheless this form of practice is not so unlike their subsequent teaching as one might suppose on first consideration, for it will be remembered that the instruction in the secondary schools, especially in the upper classes, follows essentially the lecture method.

Student Lessons.

As practice in the selection, organization, and presentation of material, however, it is admirable. The following are typical of the subjects actually treated in these student lessons: "The results of the crusades;" "An elementary lesson in vaporization;" "The political situation in Egypt under the Ptolemies;" "The metamorphosis of insects" (for a sixth form). As far as possible the students strive to suit their work to the comprehension of a given age of pupils, but inasmuch as personal experience of several years back constitutes almost the sole basis for determining this adaptation, they often go wide of the mark. In physics two students work together, one as teacher, and the other as laboratory assistant, so that the selection and preparation of the material represents a kind of joint product. The student has a regular lycée teaching period of fifty or sixty minutes for the presentation of the material. At the close his classmates are ordinarily called upon to criticise the lesson. Finally the teacher gives his criticism, first in the form of general appreciation of the work as a whole, and later with detailed suggestions as to the handling of the subject. In the main the lessons that I heard were good, although the students generally shared the faults of most young teachers: too much material, with consequently too rapid transitions and a failure to drive things home; maladaptation of material and language to the comprehension of young pupils; neglect of the relative values of material. Each student ordinarily has three such lessons in the course of the year in each subject or large phase of a subject represented in his *agrégation*, although this number may be increased or diminished according to the size of the class and the pleasure of the instructor. Thus the history student, for example, has three lessons in ancient history, three in mediæval history, three in modern history, and three in geography, making twelve in all; the natural science student likewise has twelve, four in each of his three subjects, zoölogy, botany, and geology.

The theoretical preparation in the second year has its counterpart in the following year, although this theoretical

character becomes less and less pronounced until it finally gives way entirely to the practice teaching. Following his usual custom, M. Liard, the Vice-rector of the University of Paris, opened this course in 1907–1908. In his three lectures M. Liard explained the significance of the new lycée program with its adjustments, its purposes, and its aims, and called the attention of these prospective teachers to a few vital fundamental principles of method and management. All this came with added force because founded upon the speaker's long and successful experience both as a teacher and as an administrative officer. In fact, much of the awakened interest in this purely pedagogical preparation is due to the initiative and the support of the vice-rector. In close touch with the real situation in the schools, with an open mind for possible reforms, and with the power and the courage to effect them, M. Liard is proving himself a worthy successor to the late M. Gréard. Following these general lectures required of all candidates for the *agrégation*, whether *normaliens* or university men, the students are separated into a series of parallel courses in accordance with their particular interests: letters, grammar, philosophy, history and geography, modern languages, mathematics, physics and chemistry, and natural science. These lectures, three or four in number in each series, given largely by the regular university professors, are essentially special method courses that lead up directly to the "professional apprenticeship" or practice teaching. With the completion of the series of lectures, however, the responsibility of these men ceases.

Theoretical Instruction.

The practice teaching is nowadays conducted much more seriously than before the recent reform. Under the present conditions each candidate for the *agrégation*,[1] whether a normal school student or one working independently, is required to spend at least three weeks in a lycée. The students are assigned in groups

Practice Teaching.

[1] Professors in the colleges and acting professors in the lycées are exempt from this requirement.

of two or three to various professors in the Paris schools. This time means are taken to assure the competency of the teachers for this student guidance, for the men are selected by the vice-rector for this particular purpose. As far as this practice work is concerned the students are entirely in the hands of the lycée teachers; no attempt has been made to assure uniformity of treatment thereafter. The professors take these young men in hand, go over the work with them, introduce them to the general mechanism of class-room conduct, and finally entrust their classes to them. One can readily see that when the observation and the other preliminary work have been done, the amount of time left for actual teaching cannot be very extensive, but at least it is done under competent supervision. In the modern languages, the practice teaching is considerably more extensive, for it covers approximately two thirds of the academic year.[1] The lycée professors to whom these students are sent receive four hundred francs per year extra for this work. On the strength of the reports from the teachers on the result of this teaching, together with the records of their theoretical preparation, the vice-rector issues the probation certificate required for admission to candidacy for the *agrégation*. In suggesting to one of the normal school professors the possibility of a weakness in the system from the fact that there was no bond of connection between the men in charge of the students at the school and the practice teaching, he replied: "But these secondary teachers are our colleagues, and are equally competent to look after the students." The outsider is inclined to attribute the latter part of the statement to the natural modesty of the speaker. There is an admitted defect, however, in the fact that no critical report of the teaching ever reaches the examining jury for the *agrégation*. The examination is still primarily a test of knowledge, although the technique of the profession is gradually obtaining recognition.

There is another recent innovation in the pedagogical

[1] In 1907–8, from January 8 to May 31.

preparation of the candidates for the *agrégation*. Each one is assigned to a particular primary school to visit it and acquire some general notion of its functioning. This would seem almost too trivial to mention were it not that to the large majority of these students a public primary school is an unknown land, and for more than one of them this is likely to be the only time in their lives when they will have any personal contact with the lower order of schools. In view of the wide separation between the teaching corps of these two great divisions of State schools, even such a simple requirement as this may be a means toward establishing a more sympathetic understanding among the members of the teaching profession.

Visits to Primary Schools.

After all this preliminary work has been disposed of comes the final test, the examination for the *agrégation*. There are eight orders of the *agrégés*: in philosophy, history and geography, letters, grammar, modern languages, mathematics, physical sciences, natural sciences. The *agrégation* in grammar still exists in spite of various determined efforts to abolish it. In fact there is little reason other than tradition for retaining it, for it covers nearly the same ground as the *agrégation* in letters, and even so late as the year before the examination the candidates for the two *agrégations* pass together through the test for the diploma for higher study in the classics. Each examination has its own Latin theme, its Greek theme, its Latin translation, with four hours for each, its French essay, its text interpretations in Latin, Greek, and French. The Greek translation of the letters examination is replaced by the grammatical study of Latin, Greek, and French texts for the grammar candidates. In the oral examination instead of the lecture on a literary subject, demanded of the letters men, the grammarians have additional grammatical commentaries to make on the language texts submitted for interpretation. The same authors are required of each; the general scope of the work is practically the same; each

The *Agrégation*.

teaches Latin, Greek, and French, the only difference being that the *agrégés* in letters teach in the highest forms, while the *agrégés* in grammar teach from the sixth to the first form inclusive. The present distinction harks back to the period when grammatical instruction was strongly differentiated from philosophy.

Under the revised program, holders of the master's degree in science are on the same footing with those in letters for the *agrégation* in philosophy, but the diploma in philosophy is required of all. The other *agrégations* generally require both the master's degree and the diploma in their particular fields before admitting to candidacy. The examinations in the various subjects consist of from two to five written papers each (save for the exceptions noted above in letters and grammar, together with the theme and the translation in the modern languages) of a duration of seven hours, texts to interpret and comment upon, and one or two "lessons" similar to those already described at the normal school. Formerly the candidate was allowed twenty-four hours in which to prepare this lesson, but the new régime has reduced the time to four hours for each of the science subjects, five hours for each of the two lessons in modern languages, and six hours for the philosophy, the letters, and the major choices in history and geography. In the preparation of these lessons, the books, instruments, and material asked for by the candidate are as far as possible placed at his disposition, thus largely reproducing the conditions of actual teaching, save that he is deprived of all personal contact with the outside world, and that he has to work under high pressure. The oral test in physics and chemistry includes the analysis of a salt, setting up apparatus, and a demonstration lesson in physics and one in chemistry. For the preparation of the two latter, the services of a laboratory assistant are placed at the candidate's disposal. Even under the most favorable conditions it is a serious test that demands a great expenditure of nervous energy. In the history and geography examination, probably the hardest of all,

there are four written papers of seven hours each (one on each of the great divisions of history, and one on geography), and three lessons of three quarters of an hour, with six hours allowed for preparation, the whole giving a total of more than forty-six hours.

When once a man has succeeded in this competition, the real goal of the teaching profession in France, he is in a way a charge upon the government, and it obligates itself to provide him with a living as long as he is physically and mentally capable of rendering it adequate service. It must find an appointment for him in some lycée if he so requests. Failure so to do does not relieve the State of the responsibility for his salary, which, it will be remembered, varies according to certain classes and not according to particular institutions. Furthermore, in whatever teaching position he may be placed, he is entitled to an extra remuneration of five hundred francs per year just because he is an *agrégé*. In view of this additional salary, the tenure of office, and the absolute assurance of appointment, together with the great academic honor that always attaches to these appointments, it is no wonder that in some respects it is quite as high a distinction as the doctor's degree.

Prerogatives of the *Agrégés*.

There are two other general classes of certificates for secondary teaching: the certificates of competency for modern language teaching, and for teaching in the elementary classes of the secondary schools, both obtained by competitive examination, wherein the number of places is fixed from year to year by the Minister, according to the needs of the service. The first of these, common to both men and women, is about on a par academically with the master's degree. It answers every purpose of this degree as far as eligibility for the diploma and the *agrégation* is concerned. The men, however, usually prefer to take the master's degree, otherwise they shut themselves off from a possible doctorate later on. This test provides practically all the modern

Certificates of Competency: Modern Language Teaching.

language teachers for the girls' secondary schools and the boys' colleges, and often ekes out the supply of *agrégés* in the boys' lycées. Besides a preliminary eliminatory test of a French essay, there are the usual written and oral examinations of theme, translation, grammatical commentary, and interpretation of text. Besides a sight theme and a sight translation based upon the current idiomatic language use, there is also a special mark given for pronunciation. Great stress is laid upon the ability to speak the language. In fact, before registering at the university for the regulation courses, the prospective candidates almost always count on spending a year abroad.

Every year at Paris is held a competitive examination for the certificate of proficiency for teaching in elementary classes of the secondary schools. These include only the eighth and seventh forms so that the needs each year are not very great. In 1908, there were fourteen men's appointments to be made, the regular number for recent years. For eligibility here are required the bachelor's degree, the higher diploma of the primary system with the full certificate, the certificate for teaching in the normal and the higher primary schools, or the girls' secondary diploma. The written examination includes a French essay, English or German (theme and translation with the aid of a dictionary entirely in the foreign language), history and geography, and science (arithmetic, algebra, geometry, and either physics or natural science). The oral examination covers reading and interpretation of a French text; grammar, reading and translation with grammatical questions of English or German; presentation of a lesson in history or geography; a lesson in arithmetic, physics, or natural science; and finally the treatment of some pedagogical question.

Elementary Classes.

The teachers of the preparatory classes are ordinarily drawn from the regular teaching force of the primary school system, delegated by the rector of the academy for work in secondary schools. In some cases, notably at Lille, a definite attempt is made to

Other Teaching Appointments.

select for this work not only the strongest of the primary teachers, but those best capable of getting along without supervision, for once a teacher is placed in these elementary classes, he or she is practically safe from any expert supervision. He is out of the jurisdiction of his natural head, the primary inspector, and the academy inspector who visits the lycée or college confines his attention almost entirely to the purely secondary classes. Even under the most favorable conditions possible, then, even the good primary teacher is likely to deteriorate or at least is not likely to grow professionally, for in these lower classes of the secondary school there is a lack of stimulus for further development. Although I have come across some excellent teachers in these lower grades, I must confess that on the whole I did not find the average so good as in the corresponding grades of the primary schools. Of course one must not forget that the aims of these two systems are quite distinct, that the work in the primary school must be complete in itself, while in the secondary school it is constantly looked upon as the preparation for the secondary work proper which is to follow. Yet this is to a large extent the very basis of the criticism, for too many teachers in these lower forms have imposed bodily upon their pupils the methods and processes that may succeed admirably with advanced classes. The instruction in drawing and gymnastics is given by men that hold special certificates for teaching their respective branches.

It is worthy of remark that the *agrégation* as well as the various certificates of proficiency and even the simple baccalaureate are purely state distinctions. In no case is the sanction granted by the particular institution where the work is done. The examining juries are appointed by the Minister, and the diploma comes from the State.

State Sanctions.

Although there are no tuition charges for instruction beyond the bachelor's degree, there are certain fees for matriculation, registration, library, laboratory, examination, certificate,

and diploma that amount to quite a respectable sum by the time the student is a full-fledged *agrégé*. The bachelor's degree thus costs 140 francs: 40 francs for each examination, 10 for each certificate of successful passage, and 40 francs for the degree itself. The master's degree represents an expenditure of at least 205 francs: an annual library fee of 10 francs, 30 francs registration for each of the three trimesters in the academic year, and 105 francs for examination, certificate, and diploma fees. By reason of laboratory charges and other expenses, the master's degree in science is even more expensive, amounting to 300 francs for the physics, chemistry, and natural science candidates. For the diploma and the *agrégation* examinations no fees are demanded, for it is a fundamental principle in France that no financial requirement shall exclude anybody otherwise qualified from participation in any state competition. The cost of preparation for the normal students and the scholarship holders is likewise *nil*, although the ordinary candidate has to pay the regular university fees indicated above.

Degree Fees.

Thus the examination plays fully as large a part in the preparation of the young men for the teaching profession as it did in the case of the young women. Everything proceeds in due, orderly fashion with frequently recurring checks to test the quality of the residue. While it undoubtedly happens that some are thrown out in the course of the process who might have become good teachers, yet on the other hand the system renders it practically impossible for any unworthy candidate to glide through. Some might like to see the technique of teaching occupying a relatively larger part in the preparatory process, yet one may rest assured that the secondary teacher who has passed through this training is a thorough master of his subject. He not only knows his subject matter, but his knowledge extends far beyond the periphery of what he will be called upon to present to his pupils in the secondary school. Indeed, as one of the pro-

Teaching a Profession.

fessors of the normal school told me, the *agrégés* were as competent to give instruction in the universities as they were in the secondary schools. Once out in the schools, they teach their specialties and nothing more. The *agrégé* in letters or in grammar teaches French, Latin, and Greek; the *agrégé* in history and geography teaches only these subjects. Under no conceivable conditions would either one of these men be called upon or even be allowed to teach a class in modern languages or mathematics. Individual preferences and individual convenience are subordinated to the good of the mass, to the well being of the pupil, the school, and the State. As M. Langlois wrote a few years ago: "It is only in England and America where individual liberty has been pushed to the point of charlatanism so that anybody at all can teach anything at all."[1] In France, teaching is a profession and not a trade, a life work and not a stepping stone to some other career. The Frenchman takes it up seriously and is proud of his calling. It is small wonder, then, that the staff of the French secondary schools is a splendidly equipped and an efficient body of men. We may not agree with all their aims and their ideals, we may not subscribe to all their methods, but we cannot help recognizing their intellectual ability nor can we refrain from admiring them as effective instruments for accomplishing the work they have in hand.

[1] LANGLOIS, *La préparation professionelle à l'enseignement secondaire*, p. 101.

CHAPTER XVI

SOME CHARACTERISTICS OF THE SCHOOLS OF THE TWENTIETH CENTURY

Educational Unrest.

THE history of the French secondary schools presents three well marked periods: the first when they were integrally bound up in the university scheme of education, dominated in succession by scholasticism, humanism, and the modifications superinduced by the Renaissance, a period extending from the time of Abelard until the passing of the "old régime"; the second spanning the years from the French Revolution until just past the dawn of the twentieth century, really a period of storm and stress, marked by the vain struggle of the Church fighting to retain its waning position of vantage and control, with science constantly striving to establish its right to rank with the older disciplines; and we have but yesterday crossed the threshold of the new era, marked by the reorganization of the secondary school system in 1902. Science has won its battle, and new problems are unfolding themselves, emanating from the changed conditions that a new world is bringing forth. This reform of 1902 is France's solution for the problem of the educational unrest that has been growing more and more acute in the great nations of the world for the past few years, but it is yet too early to appreciate all this dispassionately. Differing essentially from the German solution, time alone can determine which nation has solved the question the more sanely. Indeed, one is likely to find that both are right, that there is no one solution, but that, after all, each people must work out its own problems in its own way, culling what

suggestions it may from its neighbors' efforts. Everywhere there is a trend toward a closer integration of the schools and their work with the needs of everyday life. In Germany this is manifested in the lower school system by the rise of trade and vocational schools, both in the regular course and in the continuation school movement, while in the secondary field, we find the breaking away from the old classical *Gymnasium* and the decided leaning toward those institutions that stand for the so-called *Realien*. In the United States the same ferment is working, the "set" being most pronounced toward the development of industrial and agricultural instruction, the narrower commercial and manual branches, which may be looked upon as the forerunners of this whole movement with us, having undergone a veritable renaissance so as almost to be unrecognizable. The necessity for all this change is due not so much to the fact that the school is growing away from life, as that life has grown away from the school. The school has remained stationary, a proper conservative force in the community, but the time has long passed since this conservatism became obsoletism. We are now in the very midst of a frantic struggle to bring about a condition of equilibrium between the two.

A New Type of School.

In France the extreme radical view is typified by the ideas of the late M. Demolins. Convinced that the superiority of the Anglo-Saxon race bore a direct relation to the basic principles of the national education, he selected some of the salient phases of English school life, and attempted to impose them upon the French boy. The *École des Roches* and a few other similar institutions represent the embodiment of these notions. The motto on the escutcheon of the school, "well equipped for life," will suggest the fundamental conception upon which it was founded. Analogously, and at the same time not unfairly, one might suggest as a device for the present day lycées, "well equipped for examinations." M. Demolins said frankly: "We propose to create in France a new type of school, better adapted to the exigencies of actual

life."[1] And with that in view he established a school, patterned largely after Abbotsholme in England, where physical activity (including play and manual work) and a closer relation between teachers and pupils are the dominant characteristics. The failure of the ideas to be copied widely and the opposition to these endeavors that unquestionably exists in France to-day may perhaps be accounted for in an analysis offered by M. Demolins himself. In other words, socially considered, France and England belong to two quite distinct types of people; the former, in common with Germany and the other countries of Western Europe, represents the people of "communistic formation," and the latter, in conjunction with the Scandinavian nations, belongs to the people of "particularistic formation."[2] The first of these depends upon the community or group; the second upon the individuals in that group. Thus it is plain to be seen that any attempt to emphasize individual initiative (as we understand the term) among the people of "communistic formation," is bound to be met with disfavor if not with actual hostility. Furthermore, the relatively heavy expenses of the instruction at the schools like that of M. Demolins have likewise militated against their success. The French parent is going to consider very carefully before he pays twenty-five hundred francs per year for his boy's schooling, when the facilities of the very best of the state lycées are at his command for a little more than half that sum. It would be unfair to say that these schools have not succeeded, but in view of the small number of such institutions that have already been founded one would hardly be justified in according any large measure of success to the movement. Indeed, it is hard to see how these schools can compete successfully with the government schools, for, aside from the disadvantage on the score of expense, those private venture schools cannot in the long run attract the highest type of teachers. The best men will naturally prefer the state appointment with its higher social

[1] DEMOLINS, *L'éducation nouvelle*, Preface, p. v.

[2] DEMOLINS, *À quoi tient la supériorité des Anglo-Saxons*, p. 53, *et seq.*

standing, the security of the tenure, the certain though slow advancement, and the assurance of a pension at the end. With such a highly centralized state system of education as one finds in France, the only hope for any effective reform must come through the central authorities themselves. There is little chance of effecting much through the medium of such isolated institutions as the *École des Roches* and kindred establishments.

Vocational Training.

The trend toward vocational training which is so unmistakable in Germany and the United States is not so clearly defined in the public school system of France. This neglect in the last named country is more apparent than real, for the demand there is being met by the establishment of a parallel system of schools under the direction of the Minister of Commerce and Industry. The aim of these schools is primarily vocational, the intellectual aspect of their work being purely subordinate. Where the emphasis is still upon the intellectual side, the work is carried on in the schools of the department of public instruction. Besides these public schools under the Minister of Commerce and Industry, there are many similar industrial schools under the public charge that have been established by municipal, departmental, or private munificence. Practically all of these, as well as the commercial, industrial, and agricultural sections of the higher primary schools are intended to supplement the educational facilities offered to the children of the lower *bourgeoisie* and the laboring classes. Thus far the secondary school authorities have not recognized the claims of any form of manual work to a place in their curriculum, despite the fact that there were evidences of a tendency in that direction among some of the members of the superior council back in 1903 or earlier.[1] Indeed, as has already been pointed out, even in such subjects as physics, chemistry, and biology, where the value of the experimentation would seem to be axiomatic,

[1] COMPAYRÉ, *Recent educational progress in France*, Ed. Rev., Jan., 1904, p. 30.

the doing side of the work has been strangely neglected. For generations the curriculum of the secondary school has existed solely for the "idea thinker." So while apparently the character of the instruction has succeeded in developing a lot of "idea thinkers," the success has not been so great as would appear at first sight, for since all the checks upon the system emphasize this same mental aspect, the whole scheme of work exercises a powerful selective function, and the residue, or those that survive such a struggle, represent in the first place only those that are strong in abstract thinking, and in the second place those that are able to profit most by that method of instruction. There is little or no place in such a scheme of education for the concrete thinker or for the one in whom the capacity for abstract thinking appears late. The latter is usually so handicapped when he eventually develops this power, that he drops by the way in the latter part of the course, solely for the lack of the concrete material at the proper time that might have accelerated the growth of this higher power.

The more one studies educational history, the more is one forced to the conclusion that a nation's educational system is the natural outgrowth of the social ideals of the people. These latter determine the school. While the school plays a large part in perpetuating these ideals, it has relatively little power to modify them, and then only when it is backed up by public opinion. Thus the French educational system is necessarily the outgrowth of the social conditions there. On more than one occasion it has been proposed to make instruction in the secondary schools free, as it is in both the primary schools and the universities, but the project has hardly been considered seriously on account of the immense financial expenditure involved. The only step that has been taken in that direction thus far has been to separate in the budget the expenses entailed by the boarding pupils from those that properly belong to the educational account. It has long been notorious that the cost of maintaining the boarding

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pupils is considerably in excess of the income paid by these pupils. This is a questionable distribution of state funds that partakes decidedly of unfair paternalism. When the girls' lycées were first founded, upwards of a quarter of a century ago, the government studiously avoided this difficulty by refusing to establish boarding departments in connection therewith. Where these boarding departments exist at girls' schools they are maintained at private or municipal expense. Thus the professional classes in France are recruited from a comparatively small proportion of the total population, the vast majority of the people being rendered ineligible from such preferment from purely financial reasons — a condition that does not accord with our American ideas of democracy and equality of opportunity. The fact that the secondary schools exist primarily for the recruitment of the professional classes renders the likelihood of introducing vocational training into these schools more remote than ever. Such is the pressure imposed upon teachers and pupils alike by the examinations impending at the end of the course, that a subject not required by this test has small chance of fair treatment in the schools, especially as the examination period approaches. The lack of consideration devoted to the relative values of the various subjects militates decidedly against the prospect of any immediate change in this regard.

The comparatively few secondary teachers who evidence a social interest in the welfare of their pupils only intensify the general feeling that the chief aim of the French secondary school is scholarship. This merely emphasizes the "communistic formation" characterization of M. Demolins, to which reference has already been made. The individual is developed to the highest degree, not for his own advancement, but for the national good. Thus there is no particular effort to raise the general standard of all secondary school pupils except so far as that is conducive to the development of a higher type of leader. In other words, the selective function of the French secondary

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school is one of its most highly developed features. This process extends over a term of years, and every prize offered, every honorable mention awarded, only tends to engrave this characteristic the more deeply upon the very nature of the people. It is not long since every secondary school sought to make a record for itself in the general competition, an annual examination held in Paris, whose prime purpose was to stimulate the individual to extraordinary effort, but here again not for the benefit that might accrue to the individual, but because the higher the standard attained here, the greater the chance of turning out an efficient type of general, engineer, lawyer, doctor, teacher. Since the abolition of this examination in 1904, after an existence of more than a century and a half, the chief interest of each school seems to center upon the number of successful candidates it can send up for the baccalaureate, and more particularly upon the success of its boys in the competitive examinations for admission to the various government higher schools. The entrance courts of some of the lycées with their honor tablets bearing the names of former pupils who have been successful in these competitive examinations remind one strongly of the trophy room walls of an American college gymnasium, inscribed with the names of famous athletes, but these tablets bear silent testimony to the primacy of the scholarship ideal in the mind of the French secondary school boy. It is undeniable that this whole system succeeds admirably in attaining the end set before it, and that by a frequent and careful sifting of all the best material drawn, as has previously been indicated, from a relatively small proportion of the people, the State selects the most promising individuals from whom to develop its future leaders. It is thus spared the necessity of spending vast sums upon large numbers of individuals who have not the mental endowment to enable them to rise to the highest levels. In any such scheme as this, it is always significant to consider those that have fallen by the way, in other words, to "count the dead," for the mortality in this particular instance is very heavy. Perhaps the

end has been attained at too great a cost. Perhaps, on the other hand, the French temperament has need of this objective incentive in the way of rewards and distinctions in order to draw forth the best that lies within. Indeed, more than one French teacher has declared this to be the fact; but it is significant to observe that there has been no appreciable falling off in scholarship on account of the abolition of the general competition, despite the pessimistic prophecies of some of the partisans of the traditional practice.

To the inspection of the casual observer, the schools of the twentieth century, barring the case of the modern languages, present little outward difference from those preceding the reform. There has been no marked modification in buildings or equipment; there has been no new subject added to the curriculum; and except in the modern languages, as noted above, there have been few radical changes in methods of teaching. It has been a reorganization of courses where the pupil can more readily find something to fit his tastes. This is nothing like free election of subjects, but rather a kind of group system. To use a figure of M. Compayré,[1] the youth in a lycée is in the position of a traveler in a central railroad station from which four trains are about to depart. He may select the train that is going in the direction he desires to go, but once his choice is made, once seated in his train, he is practically compelled to continue therein until the end of the journey. Although this same writer recognized the possibility of a still greater freedom of election among the different subjects of instruction, no definite tendency toward expanding this slight measure of freedom has yet appeared, but this step is significant as marking a wide departure from previous conditions. Indeed, such a further modification would be little short of revolutionary. The relatively rigid stratification of the French social life with its correlative early specialization in school activities would almost seem to exclude such a change from the realm of probabilities.

[1] Ed. Rev., XXV., p. 136.

There is one other phase of French school life that deserves a passing mention, especially since it finds no place in the official reports — the growing interest in athletics. Unfortunately on account of the reason just stated, the subject does not admit of statistical treatment, but despite the fearfully crowded day of the secondary school boy, traces of a growing interest in various forms of organized sport are almost everywhere discoverable. This change is significant, not so much from the progress already achieved as for the radical departure from the traditional apathy toward these activities. The contrast to the conditions that prevailed even six years ago is particularly marked. Whereas, formerly, this interest was entirely spontaneous, sporadic, and transitory, working itself out in a "scrub" game of football during the afternoon recreation period, it is now beginning to assume a more organized form. School football teams have been formed at most of the schools, especially those whose rural situation simplifies the question of a suitable and accessible playground. The schools of Paris have a series of games annually for first and second teams in Rugby and Association football, as well as cross-country races, short dashes, field events, and fencing contests, all organized by the national athletic association. Still anything like the general interest in sport or the athletic hero that prevails so largely in our American schools is absolutely unknown. Much less is there any encouragement toward the development of a capacity for leadership or executive control that free, spontaneous participation in athletics under student direction inevitably provides. Yet the presence of even this modicum of activity is especially noteworthy as marking an evolution in the interests of the French schoolboy.

Interest in Athletics.

The new secondary school, then, embodies an amount of flexibility of course and variety of subject matter, that would have dumbfounded the French school man of even a quarter of a century ago. It represents a definite attempt to make the school respond more adequately and readily to the changed ideals of the

Stability of the Change.

modern industrial and social conditions. Although even its most ardent partisans do not claim that the present adjustment is perfect, such is the conservatism of the educational authorities that it is likely to be many a long day before any such fundamental changes take place again; for however radical the Frenchman may be in his theories, he is cautious in experimentation, and conservative to a degree in modifying the time-honored traditions. One has only to point out the painstaking and voluminous parliamentary investigation that preceded the late reform in support of this contention. Above all the system is thoroughly French and adapted to the needs and conditions of French life. It is eminently fitted "to continue that high intellectual culture which for several centuries has been France's ornament and one of her most precious and dearest glories."[1]

[1] M. CHAUMIÉ, quoted by M. COMPAYRÉ, Ed. Rev., Feb., 1903, p. 142.

APPENDIX A

COPY OF MASTER'S DIPLOMA OF ONE PETRUS MANSART, 1511[1]

Certificat d'études d'un Barbiste du temps
d'Antoine Pelin,
Imprimé dans DUBOULAY, Historia universitatis Parisiensis, t. VI., 935,
Pour les années 1511–1514.

Ego Furcaeus *de Cambray*, theologorum Parisiensium minimus, certifico dudum me rexisse unum cursum artium integrum in collegio divae Barbarae Parisius; in quo quidem cursu artium Petrus MANSART, diocesis Noviomensis, tunc scholaris, studuit sub me omnes libros, secundum consuetudinem universitatis Parisiensis requisitos ad gradum licentiarum artium. Quem quidem gradum licentiarum artium sub me adeptus est anno Domini MDXIII, ante Pascha. Et quia calendissimus magister noster *Pelin*, tunc primarius dicti collegii divae Barbarae, dudum defunctus est, certifico eumdem Petrum MANSART fuisse verum artium scholasticum, non discholum nec vagabundum, sed moram trahentem in dicto collegio per tres annos cum dimidio aut eo circiter, durante scilicet praedicto cursu meo artium. Teste signo meo manuali huic cedulae apposito, anno MDXXXV, die vero martis xxx et penultima, ante Pascha.

[1] Reprinted in QUICHERAT, *Histoire de Sainte-Barbe*, I., p. 324.

APPENDIX B

CURRICULUM OF THE COLLEGES OF THE UNIVERSITY. STATUTES OF 1600[1]

YOUNGER BOYS. Rules of grammar; selections from Terence, from Cicero's *Letters*, from Virgil's *Bucolics*, and from other authors of like purity.

MORE ADVANCED PUPILS. Selections from Sallust, from Cæsar's *Commentaries*, from Cicero's *De officiis* and his easier *Orations*, as well as Virgil and Ovid. Latin grammar reviewed with Greek grammar.

SECOND AND FIRST FORMS. More important works of Cicero, *i. e.*, the *Orations*, the *Tusculan disputations*, and other philosophical works, *De oratore*, *Brutus*, the *Rhetoric*, and the *Topica* being read with Quintilian; Virgil, Horace, Catullus, Tibullus, Propertius, Persius, Juvenal, and sometimes Plutarch.

Greek: grammar; selections from Homer, either the *Iliad* or the *Odyssey*; the *Works and days* of Hesiod; the *Idylls* of Theocritus; some of the dialogues of Plato; some orations of Demosthenes and Isocrates; the *Hymns* of Pindar and others of his works, according to the choice of the master and the ability of the pupils.

PHILOSOPHY FORM. First year: in the morning,[2] the *Categories*, the *Analytics*, and the *Topics* of Aristotle; in the afternoon, the *Ethics*.

Second year: in the morning, the *Physics* of Aristotle; in the afternoon, the *Metaphysics*, especially books iv. and xi. At six o'clock in the morning, a single hour was devoted to a study of the sphere and some books of Euclid.

[1] JOURDAIN, *Histoire de l'Université de Paris*, Appendix, pp. 4–5.

[2] The morning class was from eight until eleven o'clock, and the afternoon from two until five.

APPENDIX C

PARIS COLLEGES, 1600, CHRONOLOGICAL ORDER OF FOUNDATION [1]

† 1180 [des 18 ou de Notre Dame]
* d'Harcourt
† 1248 des Bons-Enfants-St. Victor
1256 de Sorbonne
1271 [de Calvi]
* 1280 d'Harcourt
† 1295 des Chollets
† 1302 d'Arras
* du Cardinal Lemoine
* 1304 de Navarre
† 1308 de Bayeux
† 1313 de Laon
* 1314 de Montaigu
† 1317 de Cornouailles
† de Narbonne
† 1322 de Presles-Beauvais
* du Plessis
1323 des Ecossais
† 1325 [de Tréguier]
1329 [de Marmoutiers]
† 1331 de Bourgogne
† 1333 de Tours
1334 [des Lombards]
* 1336 de Lisieux
† 1339 d'Hubant
† 1341 d'Autun
† 1343 [de Mignon]
† 1348 de Cambrai
† de St. Michel
1353 [de Boncourt]
† 1354 de Justice
† 1358 de Boissy
† 1368 du Trésorier
† 1370 de Maître Gervais
† 1380 de Daimville
† 1393 de Fortet
† 1412 de Reims
* 1423 de la Marche
† 1424 de Séez
1463 [de Coquerel]
† 1526 [du Mans]
† 1556 de Sainte-Barbe [2]
* 1569 des Grassins

* 1661 Mazarin ou des Quatre Nations [3]

† Suppressed and joined with Louis-le-Grand by letters patent, Nov. 21, 1763. CHAUVIN, *Histoire des lycées et collèges*, pp. 37, 285–291.

* Full course colleges. No one of these was consolidated with Louis-le-Grand at the above date.

[ ] Colleges marked thus disappeared during the seventeenth century. JOURDAIN, *Histoire de l'Université de Paris*, p. 38.

In several instances, colleges are found marked [ ], and †. These are discrepancies between JOURDAIN and CHAUVIN which it has been impossible to reconcile.

[1] LANTOINE, *Histoire de l'enseignement secondaire en France au XVII^e siècle*, p. 276.

[2] Sainte-Barbe existed without endowment from 1469 to 1556. The date here given is that of the foundation of the endowed college.

[3] Mazarin, 1661, does not properly belong in this list. It has been added here for purposes of general information.

COLLEGES OF THE RELIGIOUS ORDERS

1221 des Jacobins
1230 des Cordeliers
1244 des Bernardins
1252 de Prémontré
1259 des Carmes
1269 de Cluny
1297 des Blancs-Manteaux
1515 de la Merci
1564 de Clermont

APPENDIX D

CHRONOLOGICAL ORDER OF FOUNDATION OF THE UNIVERSITIES OF FRANCE IN EXISTENCE AT THE END OF THE SEVENTEENTH CENTURY [1]

1200 Paris	1332 Cahors	1452 Valence
1229 Toulouse	1364 Angers	1460 Nantes
1289 Montpellier	1365 Orange	1464 Bourges
1303 Avignon	1409 Aix	1473 Bordeaux [2]
1306 Orléans	1431 Poitiers	1547 Reims
	1432 Caen	

UNIVERSITIES OF COUNTRIES SUBSEQUENTLY ADDED TO FRANCE

1424 Dôle	1564 Besançon	1621 Strasbourg
1562 Douai	1572 Pont-à-Mousson	

[1] JOURDAIN, *Histoire de l'Université de Paris*, p. 2, note.

[2] This date is supplied from KILIAN and other writers to correct the evident error, 1441, which appears in JOURDAIN. (F. E. F.)

APPENDIX E

CURRICULUM OF THE JESUITS: RATIO STUDIORUM, 1599 [1]

Class	Subjects of Instruction, and Time Allowance		Authors and Remarks
	Morning	Afternoon	
Sixth	Recitation on the Latin author, and on Latin and Greek grammar . . . . . ¾ h. Correction of task . ½ h. Latin translation, review and advance . . ¾ h. Mother tongue and accessory exercises . . ½ h.	Recitation on the Latin author, and on the grammar . . . . 1 h. Translation of Latin author. Greek reading, a quarter-hour twice a week. Dictation of the composition work . . 1 h. Discussion. Mother tongue and accessory exercises . . . . . ½ h.	Cicero, Extracts; Phædrus, *Fables;* Nepos, *Lives.* —— Greek, Exercises in reading and writing.
Fifth	Recitation on the Latin author, and on Latin and Greek grammar . . . . . ¾ h. Correction of task . ½ h. Translation, review and advance . . . . ¾ h. Mother tongue and accessory exercises . . ½ h.	Recitation on the Latin author, and on the grammar . . . . 1 h. Translation of Latin and Greek authors alternately every two days. Dictation of the composition work . . 1 h. Discussion. Mother tongue and accessory exercises . . . . . ½ h.	Cicero, Selected letters; Cæsar; Ovid, Selections; Æsop, *Fables;* Cebes; Lucian, Selected dialogues.
Fourth	Recitation on the Latin author, and on the Latin and Greek grammar . . . . . ¾ h. Correction of task . ½ h. Translation, review and advance . . . . ¾ h. Mother tongue and accessory exercises . . ½ h.	Recitation on Latin grammar, versification, and the author, on successive days . . . . . 1 h. Translation of a Latin poet and a Greek author, alternately every other day. Dictation of the composition work . 1 h. Discussion. Mother tongue and accessory exercises . . . . . ½ h.	Cicero, Letters, *De amicitia, De senectute;* Easy speeches of Cicero; Sallust; Quintus Curtius; Extracts from Livy, Ovid, Catullus, Tibullus, Propertius, and Virgil: *Eclogues; Georgics,* 4th bk.; *Æneid,* 5th and 7th bks. —— Greek: St. Chrysostom, Xenophon, and other similar authors.

[1] *Plan d'études des Jésuites,* in Gréard, *Enseignement secondaire,* II., pp. 284–285.

Class	Subjects of Instruction, and Time Allowance		Authors and Remarks
	Morning	Afternoon	
Third	Recitation on the Latin author, and on the grammar. General principles of elocution and style . . . . . ¾ h. Correction of task . ½ h. Translation, review and advance . . . . ¾ h. Mother tongue and accessory exercises . . ½ h.	Recitation on the Latin author, and on the grammar . . . . 1 h. Translation, every other day, of a Latin poet, and a Greek (or interpretation of a French) author. Dictation of the composition work . . . . . 1 h. Discussion and accessory exercises . . . . ½ h.	Cicero, Speeches; Cæsar; Sallust; Livy; Quintus Curtius; *Æneid* (save the fourth book); Horace, *Odes* (selected). Greek: Isocrates; St. Chrysostom; St. Basil; Plato; Plutarch; Phocylides; Theognis; St. Gregory of Nazianzus; Synesius.
Second	No special program	No special program	No special program.
Rhetoric	Memory work. Translation, review and advance . . . . . 1 h. Reading from an orator, review and advance. Dictation of a text from an oration. Discussion and accessory exercises . . . . 1 h.	Translation of passages from the rhetoric. Translation of a Greek, or interpretation of a French, author . . . . 1 h. Reading from one of the poets. Correction of the task of the morning. Dictation of the subject of an oration . 1 h.	For the principles of rhetoric, Cicero and Quintilian. No special directions as to the Latin authors to be translated. Greek: Demosthenes, Plato, Thucydides, Homer, Hesiod, Pindar, St. Gregory of Nazianzus, St. Basil, St. Chrysostom. On holidays one of the historians or some passage of historical significance is explained.

APPENDIX F

EXTRACT FROM THE CASH ACCOUNT OF MONSIEUR FILLEY DE LA BARRE[1]

1706–1728

THE young Filley at the age of nine was sent to Paris to board with his guardian, Denis Leroux, paying therefor 300*l.*[2] per year from 1714 to 1719, 360*l.* in 1720, 400*l.* in 1721, and 450*l.* in 1722.

"The Jesuits gave no elementary instruction and took pupils only from the sixth form. So Filley was entrusted, April 23, to a schoolmaster or tutor named Dusossois. The latter received 2*l.* per month, and 3*l.* beginning with the following October. Furthermore he received various New Year's presents: two capons (costing 2*l.* 10*s.*) in 1715; one capon (1*l.* 5*s.*) in 1716; two pullets (1*l.* 16*s.*) in 1717; one turkey (1*l.* 18*s.*) in 1718; two pullets (1*l.* 10*s.*) in 1719; one capon (2*l.*) in 1720. The first studies of the young pupil were limited to religion and grammar; his books were *Imitation of Christ* (2*l.*) and a *Psalm book* (12*s.*). During the next two years he had two *Rudiments* (elementary Latin grammars) at 10*s.* and 15*s.* respectively; two *Prayer Books* at 16*s.* (1714–1715); two *Rudiments* at 10*s.* (1715–1716). The boy did not trouble himself with work, and he was so careless that his books were soon ruined or lost and had to be replaced. To these expenses must be added the cost of heating, which amounted to 1*l.* 5*s.* or 1*l.* 10*s.* for all winter, and the fees of the dancing teacher, 4*l.* per month. These lessons lasted from April, 1715, to May, 1716. The little Filley did not take life too seriously. From July, 1714, he spent 15*s.* monthly in pleasure. Besides this, thanks to the good

[1] DUBROUX, transcribed from the *Archives départementales des Ardennes* and published in the *Revue universitaire*, 1906, I., pp. 316–320.

[2] The monetary value of the livre, composed of twenty sous, was practically equivalent to that of the franc of to-day. It is almost needless to add that its purchasing power was considerably greater.

nature of his guardian, he spent at the Saint-Laurent fair, September 13, 1714, 2*l.* 17*s.* for sugared almonds, a Saint-Louis, a turtle, and the marionettes; in August, 1714, and 1715, 1*l.* 10*s.*, and 10*s.* for tickets to a tragedy played by the Jesuits; November 15, 1714, 1*l.* for a ticket to the fireworks; February 21, 1715, 15*s.* for the rope dancers; August 18, 6*s.* for a place on the occasion of the coming of the Portuguese ambassador. He had his purse filled at New Year's. His mother gave him 2*l.* 10*s.* in 1715, and 3*l.* in 1716, and his Mother Carline in the convent at Dinant, 5*l.* in 1715.

"In October, 1716, without discontinuing the lessons with his tutor, Filley entered the sixth form at the Collège Louis-le-Grand. Instruction being gratuitous, his expenses included only the fee of the servant that swept out the class room (3*s.* per month, besides New Year's presents); the candle for lighting (15*s.* in winter); presents given to regent of the college (2*l.* in 1715 and 1716 for a bouquet of artificial flowers); and the purchase of text-books. The following are the purchases with the dates of the same:

"SIXTH FORM (1716–1717), October 1: Latin-French dictionary, 2*l.* 15*s.*; *Rudiment*, 12*s.*; *Particles*, 8*s.*; Despautère (one of the books of his treatise on grammar, written in Latin, and consisting of *Rudiments*, *Grammatica*, *Syntaxis*, *Prosodia*, *De figuris et tropis*), 12*s.* November 20: *Catechism*, 4*s.* April 1: Phaedrus, 1*l.* 10*s.*; *Rudiment*, 12*s.* Greek grammar, 10*s.*; Leaves of Cicero (specially arranged so that the pupils could write interlinear or marginal notes), 3*s.* August 25: *Rudiment* and *Particles*, 1*l.* 2*s.*

"FIFTH FORM (1717–1718), October: Cicero and Ovid, 1*l.* 11*s.*; Eutropius, 14*s.*; Syntax, 14*s.*; Greek, 12*s.*; *Particles*, 10*s.*; *Catechism*, 4*s.* January: A French author, 1*l.* 5*s.*

"FOURTH FORM (1718–1719), October 1: Despautère, 15*s.*; Clénart (or Kleinarts, Flemish philologist, author of *Institutiones ac meditationes in Graecam linguam*), 12*s.*; Délices, 14*s.*; Author, 14*s.*; *Catechism*, 4*s.* January: *Catechism*, 4*s.* April 15: Nepos 14*s.*; Greek roots, 1*l.* 5*s.*

"THIRD FORM (1719–1720), October 1: Quintus Curtius, 1*l.*; Virgil, complete, 1*l.*; Latin dictionary, 4*l.* 10*s.*; Synonyms of the new edition, 4*l.*; Greek fables, 10*s.* April 1: Cicero, 7*s.*; Saint John Chrysostom, 12*s.*; Accents, 1*l.* 10*s.*

"SECOND FORM (1720–1721), October 1: Cicero, 4*s.*; Virgil, 1*l.* 10*s.*; Sallust, 2*l.* 10*s.*; Horace, 3*l.*; *Batrachomyomachia* (the battle of the rats and the frogs, commonly attributed to Homer), 5*s.* June: Horace, 1*l.* 15*s.*; Cicero, 8*s.*; Velleius Paterculus, 12*s.*

"RHETORIC FORM (1721–1722), October 10: Cicero, 9*s.*; Juvenal, 2*l.* 10*s.*; Livy, 2*l.* 10*s.*; Analysis of Cicero's Orations, 3*l.* 10*s.*

"The list is incomplete for the last class, for Filley left Paris in March, 1722, before he had to buy the second lot of books for the year."

The various sums charged up to the purchase of catechisms do not seem to have resulted in any very beneficial effect on the life and character of this youth, for on at least two subsequent occasions further sums of money were expended for masses destined to bring about a reform in his actions, and in November and December, 1720, somebody seems to have taken a more practical means of assuring proper behavior on the young man's part by paying the aforementioned sweeper of the class room 2*l.* 5*s.* per month to conduct him from the college to his guardian's house and back again.

APPENDIX G

CURRICULUM OF THE UNIVERSITY COLLEGES, 176— ACCORDING TO ROLLAND[1]

SIXTH FORM. The *Maxims of Tobias*, and the moral books of the Old Testament; the gospels for Sundays and holidays; the catechism of the diocese; Old Testament history; an abridged French grammar; principles of the Latin language; Furgault's Greek grammar; selected stories from the Old Testament; sacred colloquies; Cicero's letters; the fables of Æsop, Phaedrus, and La Fontaine; Aurelius Victor.

FIFTH FORM. The *Maxims of Tobias*, and the moral books of the Old Testament; the gospels for Sundays and holidays; the catechism of the diocese; an abridged French grammar; principles of the Latin language; Furgault's Greek grammar; Nepos; Justin; selections from profane history; selected precepts of Cicero; the fables of Æsop, Phaedrus, and La Fontaine; simple letters chosen from different authors; a knowledge of mythology, the questions and answers being given in French.

FOURTH FORM. Maxims from the Scriptures; the epistles and gospels; the catechism of Paris; principles of the Latin language, second part; Furgault's Greek grammar; an abridged French grammar; Æsop's fables; the gospel according to Luke (in Greek); Cicero's *De senectute* and *De amicitia*, his letter to Quintus, the paradoxes, and moral precepts chosen from him; Cæsar; Ovid; Virgil's *Bucolics* and *Georgics;* an abridged Roman history.

THIRD FORM. Sentences and verses from the Scriptures, the epistles and the gospels.

Before Easter: Cicero: *De officiis*, *De natura deorum*, and the *Tusculans; Letters to Atticus;* rules of Latin prosody; Quintus Curtius; Paterculus; some books of the *Metamorphoses.*

After Easter: Some of Cicero's orations, such, for example, as the

[1] GRÉARD, *Éducation et instruction, Enseignement secondaire*, II., pp. 288–289.

Catilines, or the *Manilian law;* Sallust (distributed over two years). The *Georgics* and the first two books of the *Æneid* in alternate years.

GREEK: Some of Lucian's dialogues; selected passages from Herodotus; the orations of Isocrates; Plutarch; Greek roots.

FRENCH: *Morning* — Restaut's grammar, together with selections from the best authors; at the end of the year, Vertot's *Roman revolution*. *Afternoon* — An abridged history of Greece with geographical and chronological commentaries upon that history.

SECOND FORM. Sentences and verses from the Scriptures, the epistles and the gospels.

Before Easter: Cicero: *De oratore*, or oratorical selections.

After Easter: Some of Cicero's orations (other than those read in the third form); selected passages from the *Cyropædia*, or some of Plutarch's *Lives;* the *Æneid*, the first six books alternating yearly with the last six.

Throughout the year: Horace, *Odes* or *Satires;* alternately the satires of Boileau or the finest odes of Rousseau; the finest passages from the *Iliad* or the *Odyssey;* Restaut's French grammar. Several other books in addition, some of which shall be chosen for reading aloud.

Morning — Bossuet, *Universal history;* Vertot, *Revolution in Portugal;* Abbé Saint-Real, *The Venetian confederation;* Pellisson, *History of the French Academy;* Fontenelles, *Éloges académiques;* Montesquieu, *Grandeur des Romains;* etc. *Evening* — An abridged history of France.

RHETORIC FORM. ANCIENTS: Demosthenes, Isocrates, Sallust, Livy, Tacitus, Horace (especially the *Ars poetica*), Virgil, Perseus, Juvenal.

MODERNS: St. Cyprian, St. Jerome, Salvian, Lactantia, St. Basil, St. Gregory, St. Chrysostom, Bossuet, Fléchier, Mascaron, Fénelon, d'Aguesseau, Bourdaloue, Massillon, Boileau (especially his *Art poétique*), the sacred tragedies and *les Cantiques sacrés* of Racine, *le Poéme de la religion* of Racine the younger, the *Odes* and the *Psalms* of Rousseau.

APPENDIX H

COMPARATIVE DAILY PROGRAMS IN 1769 AND 1874[1]

THE day of a pupil at the College of Clermont (now the lycée Louis-le-Grand) in 1769, and the day of a pupil at the lycée Louis-le-Grand in 1874.

COLLEGE OF CLERMONT		LYCÉE LOUIS-LE-GRAND	
5.30	Rise	5.30	Rise
6.00–7.45	Study — learning the Scriptures	6.00–7.30	Study
8.15–10.30	Class work	8.00–10.00	Class work
10.30–12.00	Mass and study	10.00–12.00	Study. Religious lecture. Various exercises
		12.00–1.30	Recreation
1.00–2.00	Study	1.30–2.30	Study
2.15–4.00	Class work	2.30–4.30	Class work
		4.30–5.00	Recreation
5.00–6.00	Study	5.00–8.00	Study
6.00–7.00	Lecture for the philosophy students		
7.00–8.00	Study		
8.00–9.00	Supper and recreation		
9.00	Bed	9.30	Bed

NOTE. In the program of 1769, breakfast must have come between 7.45 and 8.15, and dinner from 12.00 to 12.30, with probably a short recreation period until one o'clock.

In the program of 1874, breakfast came at 7.30, and dinner during the first part of the so-called recreation period from 12.00 to 1.30. Supper was undoubtedly at eight o'clock.

[1] LANTOINE, *Histoire de l'enseignement secondaire en France au XVII^e siècle*, p. 288.

APPENDIX I

OCCUPATIONS OF PARENTS OF SCHOLARSHIP HOLDERS APPOINTED IN 1906–1907 [1]

(Boys and Girls)

Occupations	Boys		Girls	
	No. of scholarships	Per cent	Number of scholarships	Per cent
Professors of higher and secondary education	34	2.93	19	9.3
Officers and teachers of primary system	211	18.20	56	27.4
Army and navy officers, in active service or retired	91	7.84	4	1.9
Non-commissioned officers, army and navy, gendarmes and forest guards	90	7.75	7	3.3
State, departmental, and communal officers	269	23.22	35	17.1
Business employés	78	6.73	22	9.3
Railway employés	33	2.93	5	2.4
Liberal professions: doctors, pharmacists, barristers, architects, men of letters, artists, etc.	60	5.18	9	4.4
Merchants	82	7.08	11	5.3
Agriculturists, farmers, and small proprietors	77	6.73	10	4.9
Artisans and laborers	104	8.97	17	8.3
Clergymen	13	1.12	3	1.4
Notaries, bailiffs, and court officers	16	1.37	3	1.4
Miscellaneous			3	1.4
	1,158		204	
Total functionaries paid from the public treasury	695	60.0	121	59.0

[1] *Budget général de l'exercice*, 1908, p. 77.

APPENDIX J

MENU. LYCÉE LAKANAL, SCEAUX[1]

January 26 to February 1, 1908

SUNDAY	
Breakfast	Coffee; butter.
Luncheon	Calf's head, with oil; breaded veal cutlets; sausage, with mashed potatoes; apples.
Dinner	Vegetable soup; mutton cutlet; mixed vegetables; salad with eggs; Gruyère cheese.
MONDAY	
Breakfast	Coffee; butter.
Luncheon	York ham; fricassee of veal; fried potatoes; pineapples.
Dinner	Crécy soup; roast sirloin of beef; rice with gravy; jam.
TUESDAY	
Breakfast	Chocolate.
Luncheon	Fillets of herring; roast pork; macaroni with grated cheese; cream cheese.
Dinner	Peasant soup; mutton stew, with early vegetables; fried oyster plant; assorted nuts, figs, and raisins.
WEDNESDAY	
Breakfast	Coffee; butter.
Luncheon	Beef salad; roast veal; tomato sauce; potatoes with butter and parsley; cheese.
Dinner	Potato soup; leg of mutton; Brittany beans; stewed prunes.
THURSDAY	
Breakfast	Coffee; butter.
Luncheon	Maine patties; rabbit stew, with white wine; string beans; apple marmalade.
Dinner	Parisian soup; roast beef, bordelaise; gratin dauphinois; small cakes.

[1] From the menu posted in the entrance hall of the lycée. The official regulations require that the menu of the current week be signed by the head master, the school physician, and the bursar, and be posted in some conspicuous place. In this way, visiting parents may readily satisfy themselves as to the variety, at least, of the food that is set before their children.

FRIDAY

Breakfast	Chocolate.
Luncheon	Potato salad; hard boiled eggs and cabbage; lentils with white wine; jam.
Dinner	Pea soup; potato omelet; rice pudding, with fruit; Camembert cheese.

SATURDAY

Breakfast	Coffee; butter.
Luncheon	Pressed meat; beefsteak with water cress; baked cauliflower with cheese; cream cheese.
Dinner	Onion soup; roast veal; coffee custard; small cakes.

This is the menu for the sixth form boys and upward, but the younger children live a little more simply. Each boy has a quarter bottle of wine at luncheon and at dinner, and bread in abundance at every meal. Lakanal is said to be the pleasantest of all the French lycées at which to live, and so far as my own experience is concerned this reputation is justly deserved. The fees are relatively high there, and this naturally allows a wider and more varied menu than is possible at the less expensive schools in the country.

As evidence of the strict economy of the French kitchen, it may be observed that every particle of meat that goes into the dining room is carefully weighed by the chief cook, and every scrap has to be accounted for. In some lycées each individual portion is weighed, while in others the eight or ten portions required at a table are cut together and the boys left to divide them at the table. In the best schools the boys receive from one seventh to one fifth of a pound of meat each, according to their age, at a meal, but in the smaller schools this quantity is somewhat less. There is ordinarily an abundant supply of bread and vegetables. So, too, in the largest schools, the wine allowance for the oldest pupils is all pure wine, while for the younger it is diluted. In either case the boys, according to the universal French custom, mix it with water to suit their taste. As the price of board decreases, we are likely to find the purity of the wine decreasing at least as rapidly proportionally.

APPENDIX K

PROGRAM OF THE EXAMINATION (LETTERS) FOR THE CERTIFICATE FOR TEACHING IN GIRLS' SECONDARY SCHOOLS[1]

Ethics

In ethics the subject will be chosen from the programs of the girls' secondary schools. The following summary will serve as a guide to the candidates for the preparation of the questions of education and instruction:[2]

1. Aims of education and means of attaining the same: habits, principles. The education of women. The education of girls in our establishments of secondary instruction in France.
2. Physical education; exercises and games. Physical education of girls at the lycée.
3. Moral education. Education of the will and the feelings. The different aspects and methods of character formation. Education of the moral conscience.
4. Intellectual education according to age. Formation of the judgment and the taste.
5. Domestic education.
6. Instruction. Relative values of literature, history, poetry of the arts, the sciences, in secondary education of girls.
7. Methods of instruction: the class, the course, the art of questioning, the reading of texts, the choice and correction of home work.
8. Discipline.
9. What should be the spirit of the school? How attained?

[1] *Bull. adm.*, 1907, II., pp. 341–343.

[2] Candidates may furthermore consult with profit among other books the following:

Fénelon — *Traité de l'éducation des filles;* Rousseau. — *L'Émile;* Spencer. — *L'Éducation intellectuelle, morale et physique;* Mme. Necker de Saussure. — *L'Éducation progressive ou Étude du cours de la vie;* Gréard. — *L'Éducation des femmes par les femmes. Instructions, programmes et règlements de l'enseignement secondaire dans les lycées de garçons.*

French Literature

1. Extracts from *Mathurin Regnier*.
2. Corneille. — *Don Sanche d'Aragon*, act I.; act II., sc. i.; act V.
3. Molière. — *Les Fâcheux*.
4. Racine. — *Britannicus*.
5. Boileau. — *Satire* III. (*Le repas ridicule*). *Art poétique*, chants I. et III.
6. Mme. de Sévigné. — *Lettres choisies;* n° 20 à 30; n° 43; n° 55 à 63; n° 67, 68, 84, 94.
7. Buffon. — *Discours sur le style*.
8. Voltaire. — *Choix de lettres;* n° 18 à 21; n° 100 à 125; n° 134, 137; n° 143 à 147.
9. Mme. de Staël. — *Pages choisies*. Extracts from *Considérations sur les principaux événements de la Révolution française*, pp. 291–335.
10. *Choix des moralistes françaises*, Bouglé et Beaunier, ed. — Extracts from Malebranche, Nicole, Rollin, Renan, Bersot.
11. Poésies domestiques: *la Famille*, pp. 60–129, dans les *Extraits des poètes lyriques du XIX^e^ siècle*.

History

1. Roman institutions and customs during the last two centuries of the republic.
2. French royalty, civilization, and arts of the thirteenth century.
3. Russia, from the death of Catherine II. to the death of Alexander II.
4. The Second Republic.

Geography

1. *General*. The progress of ocean exploration. Great oceanographic expeditions of the present. Purely geographical results of these explorations: state of our knowledge of ocean depths, currents, climates, fish and fisheries, and of the polar seas.
2. *France*. Savoy, Dauphiny, and Provence.
3. *Europe*. Spain and Portugal.
4. *Outside Europe*. Japan and its dependencies.

English Authors

Shakespeare. — *Macbeth*.
Tennyson. — *Idylls of the King* (abridged edition by A. Baret).
William Morris. — *News from Nowhere*.
Milton. — *L'Allegro*. — *Il Penseroso*.

German Authors

Goethe. — *Schweizerreise*.
Schiller. — *Die Kraniche des Ibykus, der Taucher, der Gang nach dem Eisenhammer, Würde der Frauen*.

Körner. — *Zriny.*
Von Wildenbruch. — *Neid.*

Italian Authors

Machiavel. — *Storie Fiorentinie,* books I. and II.
Tasso. — *Jérusalem délivrée,* cantos VII. and VIII.
Alfieri. — *Saül.*
Massimo d'Azeglio. — *Niccolo dei Lapi.*

Spanish Authors

Quintana. — *Vidas de Españoles célebres. El Cid.*
Cervantes. — *Don Quijote,* part I., chapters VII., VIII., and IX.
Moratin. — *El si de las niñas.*
J. Zorilla. — *A buen juez mejor testigo.*

APPENDIX L

DIPLÔME D'ÉTUDES SUPÉRIEURES DE PHILOSOPHIE

Université de Paris
Faculté des Lettres

Session de juin 1908

Noms [1]	Sujets de Mémoires	Note 0à20	Explication Critique de Textes	Note 0à20	Total des Points
1	Interprétation et modification du Kantisme, par K. D. Reinhold	1 14 2 11	Lucrèce, De natura rerum livre V. A[1]	7	32
2	L'expérience par illumination intérieure chez Roger Bacon	1 16 2 15	Berkeley, Dialogues entre Hylas et Philonous. Trad. Beaulavon-Parodi. B	14	45
3	La philosophie morale de Th. Green	1 16 2 14	Alexandre, de anima, p. 60, livre I de l'édition de Bruns jusqu'à p. 100, ligne 17. C	13	43
4	Les gestes stéréotypés dans la demence précoce	1 10 2 10	Platon, Sophiste, du chapitre 24 à la fin. C	10	30
5	L'influence de Jules Lequyer sur la philosophie de Ch. Renouvier	1 14 2 16	Kant, De mundi sensibilis atque intellegibilis forma atque principiis. D	15	45
6	Ficin traducteur et commentateur de Plotin	1 12 2 13	Rousseau, Contrat social, livre I et II. E	8	33
7	Pathologie de la croyance	1 15 2 14	Plotin, vi, 9. De l'union du bien. F	14	43
8	La nature et la variation de l'état de la matière vivante appelée "individu" (d'après les végétaux inférieurs)	1 13 2 14	Epictète, Dissertations, livre II du chapitre I au chapitre XII inclus. D	12	39
9	Étude sur l'introduction en France de la philosophie de Kant, depuis les origines jusqu'en 1820	1 15 2 14	Lucrèce, De natura rerum, livre III. F G	7	36
10	Psychologie de la folie communiquée (Contribution à l'étude de la contagion mentale)	1 17 2 16	Aristote, Physique, livre VIII du chapitre 4 à la fin. C	13	46
11	L'union de l'âme et du corps dans la philosophie de Spinoza	1 14 2 15	Platon, République, livre V, depuis 475 B jusqu'à la fin et livre VI entier. D	11	40

[1] The names of the candidates have been replaced by numbers, and of the examining professors by letters.

Noms	Sujets de Mémoires	Note 0à20	Explication Critique de Textes	Note 0à20	Total des Points
12	Le Dieu de Spinoza et ses origines chez Descartes	1 17 2 17	Platon, Phédon, du chapitre XV inclus au chapitre LXVII exclus. C	17	51
13	Contribution à l'étude de la religion de Descartes	1 16 2 15	Aristote, Ethique à Nicomaque, livre I. H	15	46
14	L'esthetique de l'abbé Dubos	1 6 2	Spinoza, Ethique, livre V		
15	Étude critique de quelques théories contemporaines relatives au *moi*	1 11 2 11	Comte, Cours de philosophie positive, 48 et 49 leçons. B	8	30
16	L'expression chez les mélancoliques	1 10 2 10	Spinoza, Ethique, livre I. H	6	26
17	La psychologie des Passions en France depuis la Renaissance jusqu'en 1650. (Introduction au traité *Des Passions* de Descartes)	1 15 2 15	Platon, Menon. C	13	43
18	Du principe de causalité et de la liberté chez Spinoza	1 10 2 7	Aristote, Politique, livre III. E	13	30
19	Macrobe et Néoplatonisme	1 13 2 13	Schopenhauer, Critique de la philosophie kantienne dans "Le Monde" comme volonté et représentation. B	14	40
20	Effets dynamiques de la sensation	1 14 2 13	Cicéron, De natura rerum, livre I. F	7	34
21	La psychologie de J.-L. Vives (1492–1540)	1 11 2 10	Kant, Critique de la raison pure, Préfaces de la 1 et de la 2 édition. Introd. A	11	32
22	Analyse critique de la méthode dans la Physique de Descartes	1 6	Renouvier, Science de la morale, t. I, livre I		
23	La philosophie sociale de Spinoza	1 14 2 10	Malebranche, Recherche de la vérité, livre IV. G	10	34
24	La théodicée de Fénelon	1 17 2 16	Aristote, Physique, I. C	16	49
25	Nos connaissances sur la matière d'après les faits recemment découverts et les idées nouvellement mises en œuvre (1895–1907)	1 15 2 15	Descartes, Méditations, II, III, IV. B	14	44

This will give a fairly comprehensive idea of the character of the questions and the general conduct of the examination for the higher diploma, the intermediate stage between the master's degree and the *agrégation*.

Each part of the examination is marked upon a scale of twenty. The first gives the valuation of the written essay, the second the

grade obtained at the oral quiz upon that essay, the third the mark received upon the interpretation of the special text, assigned to the candidate three months before the examination, and the fourth the sum total of the other three. A mark of at least thirty is necessary in order to pass.

APPENDIX M

BIBLIOGRAPHY

THE character of this account of the French Secondary Schools and the circumstances under which it was written necessitated the almost exclusive use of French authorities. An effort has been made to cite the more important of the later articles in the *Report of the United States Commissioner of Education* for the benefit of the reader to whom this foreign material will not be available. For further literature relating to education in France, see

Columbia University Library Bulletin No. 2. *Books on Education in the Libraries of Columbia University.* N. Y., 1901;

CUBBERLEY, ELWOOD P., *Syllabus of Lectures on the History of Education.* 2d ed. N. Y., 1904; and

FARRINGTON, FREDERIC ERNEST, *The Public Primary School System of France.* N. Y., 1906.

The unusual and rather arbitrary classification of the subjoined bibliography has been adopted with the view of rendering it more readily available for the reader. Under I. and II. will be found the historical material of both classes; under III., the general secondary material (other than historical) that deals with phases of the subject not readily falling under the succeeding rubrics. The significance of the other captions will be self-evident.

The bibliography makes no claim to completeness, especially on the method side under Subjects of Instruction. On this phase of the study, however, the author has consistently depended upon personal observation rather than upon the works of other writers in these fields.

The following additional abbreviations are used in this bibliography:

Rev. int. for Revue internationale de l'enseignement.
Rev. univ. for Revue universitaire.

The other abbreviations will need no interpretation.

I. SOURCES

Annuaire de l'instruction publique et des beaux-arts. Delalain Frères, publishers. Paris.

Published yearly since 1851.

BALUZE, ÉTIENNE. *Capitularia regum Francorum.* 1780. 2 v.

BUISSON, FERDINAND. *Répertoire des ouvrages pédagogiques du XVI^e siècle.* Paris, 1886. xvi + 733 pp.

CHAPTAL, J. A. *Rapport et projet de loi sur l'instruction publique.* Paris, An IX. (1800.) 134 pp.

CHEVALIER, MICHEL. *De l'instruction secondaire, à l'occasion du rapport au roi de M. Villemain.* Paris, 1843. 35 pp.

CONDORCET. *Rapport et projet de décret sur l'instruction publique, présentés à l'Assemblée nationale au nom du Comité d'instruction publique.* Reprinted in HIPPEAU, *q. v.*

DENIFLE, HENRICUS, ET ÆMILIUS CHATELAIN. *Chartularium universitatis Parisiensis.* Parisiis, 1889–1897. 4 v.

This monumental work, all source material, covers the period 1200–1452, the untimely death of the moving spirit having stopped the publication at that point.

DENIFLE, HEINRICH. *Die Entstehung der Universitäten des Mittelalters bis* 1400. Berlin, 1885. xlv + 815 pp.

Documents:

L'administration de l'instruction publique, de 1863 *à* 1869, *sous le ministère de S. Exc. M. Duruy.* Paris, 1869. xxiv + 932 pp.

Bulletin administratif du ministère de l'instruction publique. Paris, 1850–

Published monthly until 1881, and weekly since that time. The official publication of the Minister.

Bulletin universitaire contenant les ordonnances, règlements, et arrêtés concernant l'instruction publique. Paris, 1829–1838. 7 v.

Circulaires et instructions officielles relatives à l'instruction publique. Paris, 1802–1900. 12 v.

Circulaires et instructions officielles relatives à l'instruction publique publiées sous le ministère de S. Exc. M. Duruy (1863–1869). Paris. xxiv + 716 pp.

Journal général de l'instruction publique, 1831 *à* 1870; 1879 *à* 1882.

Lois et actes de l'instruction publique, 1848–1855. Paris. 8 v.

Recueil de lois et règlements concernant l'instruction publique depuis l'édit de Henri IV., en 1598, *jusqu'à ce jour.* Paris, 1804–1828. 9 v.

Ends with 1827. Very incomplete for the pre-Revolutionary period. For continuation, see RENDU, *infra.*

Recueil de règlements relatifs à l'enseignement secondaire. Paris, 1900. ix+ 888 pp.

Contains all the regulations in force in 1900.

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Continuation of *Recueil des lois, supra.* Unsatisfactory as a source on account of the form and arrangement of the material.

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JOURDAIN, CHARLES. *Le budget de l'instruction publique et des établissements scientifiques et littéraires depuis la fondation de l'université impériale jusqu'à nos jours.* Paris, 1857. iv + 340 pp.

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The original treatise, in Latin, was intended to complete the *Ratio studiorum.* It appeared anterior to 1719.

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Compte rendu des Constitutions des Jésuites. Paris, 1762. 288 pp.

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ROLLAND D'ERCEVILLE. *Compte rendu aux Chambres assemblées de ce qui a été fait par MM. les commissaires nommés par les arrêts de* 6 *août et* 7 *septembre* 1762. Paris, 1763–1764. 2 v.

Recueil de plusieurs des ouvrages de Monsieur le président Rolland, imprimé en execution des délibérations du bureau d'administration du Collège Louis-le-Grand, des 17 *janvier et* 18 *avril* 1782. Paris, 1783. lx+ 951 pp.

Séances et débats des écoles normales, recueillies par des sténographes et revues par les professeurs. Nouvelle édition. Paris, 1800. 13 v.

The term *écoles normales* is erroneous, for there never was but one school established. The lectures actually delivered at the school appear in the first six volumes, the next four volumes containing the lectures prepared in connection with the work of the school, but never delivered there. The last three volumes are composed of the discussions.

Statistics:

Statistique de l'enseignement secondaire: 1840–1854, 1865, 1876, 1887.

These four reports are all that have appeared despite the efforts of Napoleon (*décret* 17 *mars* 1808) and Louis Philippe (*ordonnance* 3 *mars* 1843 ordering such a report to be prepared every five years).

Statistique en 1865. Paris, 1868. clvi+ 481 pp.

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APPENDIX N

BOYS' SECONDARY SCHOOLS

WEEKLY PROGRAM — REGULATIONS OF 1902, 1905, 1912[1]

Preparatory Division

I Year	hrs.	II Year	hrs.
French	9	French	7
Moral and civic instruction[2]	..	Moral and civic instruction[2]	..
Writing	2½	Modern languages	2
Simple history stories	1	Writing	2½
Geography	1½	Simple history stories	1
Arithmetic	3	Geography	1½
Nature study	1	Arithmetic	3
Drawing	1	Nature Study	1
Singing	1	Drawing	1
		Singing	1
Total	20	Total	20

[1] *Arrêtés*, May 31, 1902, July 27, 28, and Sept. 8, 1905, and Nov. 15, 1912, *Plan d'études et programmes d'enseignement dans les lycées et collèges de garçons*, Delalain Frères, 1913, pp. xix–xxii.

[2] This instruction will be given in connection with the instruction in French, history, and geography, and is included in the time assigned to these subjects.

Elementary Division

(Eighth and seventh forms)

	HRS.
French	7
Moral and civic instruction [1]	..
Modern languages	2
Writing	1
History and geography	3
Arithmetic	4
Nature Study	1
Drawing	1
Singing	1
Total	20

FIRST CYCLE

(Length, four years; from the sixth to the third form inclusive)

Sixth Form

Division A	HRS.	Division B	HRS.
French and Latin	10	French	6
Modern languages	5	Writing	1
History and geography	3	Modern languages	5
Arithmetic	2	History and geography	3
Natural science	1	Arithmetic	3
Drawing	2	Natural science	2
		Drawing	2
Total	23	Total	22

Fifth Form

	HRS.		HRS.
French and Latin	10	French	6
Modern languages	5	Writing	1
History and geography	3	Modern languages	5
Arithmetic	2	History and geography	3
Natural science	1	Mathematics and mechanical drawing	4
Drawing	2	Natural science	1
		Drawing	2
Total	23	Total	22

[1] This instruction will be given in connection with the instruction in French, history, and geography, and is included in the time assigned to these subjects.

Fourth Form

	With Greek HRS.	Without Greek HRS.		HRS.
Literary instruction: ethics, French, Latin	10	10	Literary instruction: ethics, French	6
Greek	3	..	Modern languages	4
Modern languages	3	4	History and geography	3
History and geography	3	3	Mathematics, book-keeping, and mechanical drawing	4½
Mathematics	2	2	Physics and chemistry	1½
Natural science	1	1	Natural science	1
Drawing	1	2	Drawing [1]	2
Totals	23	22	Total	22

Third Form

	With Greek HRS.	Without Greek HRS.		HRS.
Literary instruction: ethics, French, Latin	11	11	Literary instruction: ethics, French	7
Greek	3	..	Modern languages	5
Modern languages	3	4	History and geography	3
History and geography	3	3	Mathematics and mechanical drawing	5
Mathematics	3	3	Physics and chemistry	1½
Drawing	1	2	Natural science	1
			Book-keeping [2]	..
			Drawing	2
Totals	24	23	Total	24½

[1] One hour for mechanical drawing.

[2] One optional hour of practical book-keeping in those schools where it is deemed advisable, the decision being made by the professors in general meeting.

SECOND CYCLE

(Length, three years; from the second to the philosophy form inclusive)

	Second Form				*First Form*			
	Section A Latin-Greek	Section B Latin-modern languages	Section C Latin-science	Section D Science-modern languages	Section A Latin-Greek	Section B Latin-modern languages	Section C Latin-science	Section D Science-modern languages
	HRS.	HRS.	HRS.	HRS.	HRS.	HRS.	HRS.	HRS.
Literary instruction — French	4	4	4	4	4	4	4	4
Literary instruction — Latin	4	4	4	..	3	3	3	..
Literary instruction — Latin, extra hours	..	..	..	..	2	.. + 2*	..	..
Literary instruction — Greek	5	..	..	..	5	..	..	..
Literary instruction — total	13	8	8		14	7	7	
History and geography — modern history	2	2	2	2	2	2	2	2
History and geography — ancient history	1½	1½	..	..	2	2	..	..
History and geography — geography	1	1	1	1	1	1	1	1
History and geography — total	4½	4½	3	3	5	5	3	3
Modern languages	2	2 / 1[1] / 4[2]	2	2 / 1[1] / 4[2]	2	2 / 1[1] / 4[2]	2	2 / 1[1] / 4[2]
		7		7		7		7
Mathematics	2	2	4½[4]	4½[4]	2 + 2*	2 + 2*	5	5
Physics and chemistry	..	..	2½[5]	2½[5]	..	..	3	3
Physics and chemistry laboratory	..	..	2	2	..	..	2	2
Drawing	2	2	2 / 2[3]	2 / 2[3]	.. 2*	.. 2*	2 / 2[3]	2 / 2[3]
			4	4			4	4
Totals	23½	23½	26	27	23 + 4*	21 + 6*	26	28

* Optional.

[1] In Sections B and D one hour of special work for the language studied in the first cycle.

[2] Four hours for the second language.

[3] Two hours for mechanical drawing.

[4] Mathematics occupies five hours per week up to Feb. 15, and four hours after that date.

[5] Chemistry occupies one hour per week up to Feb. 15, and two hours after that date.

Philosophy and Mathematics Forms

	Philosophy		Mathematics	
	Section A	Section B	Section A	Section B
	HRS.	HRS.	HRS.	HRS.
Philosophy	$8\frac{1}{2}$	$8\frac{1}{2}$	3	3
Greek-Latin	.. 4*	..	..	..
Latin	..	.. 2*	..	..
Modern languages	.. 2*	1 / 2[1]	2	1 / 2[1]
History and geography	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$
Mathematics	.. 2*	.. 2*	8	8
Cosmography	$\frac{1}{2}$	$\frac{1}{2}$	..	..
Physics and chemistry	5	5	5	5
Physics and chemistry laboratory	..	..	2	2
Natural sciences	2	2	2	2
Drawing	.. 2*	.. 2*	1[2] + 2*[3]	1[2] + 2*[3]
Hygiene (12 lectures of one hour each)[4]	..	..	..	..
Totals	$19\frac{1}{2}$ + 10*	$22\frac{1}{2}$ + 6*	$26\frac{1}{2}$ + 2*	$27\frac{1}{2}$ + 2*

* Optional.

[1] The pupils have the right to select for themselves the distribution of these two hours.

[2] Mechanical drawing.

[3] Freehand drawing is optional.

[4] These lectures are included in the natural science instruction.

INDEX

The following abbreviations are used in this index: dip., *diploma;* exam., *examination;* exams., *examinations;* norm., *normal;* s., *school;* ss., *schools.* The significance of the other abbreviations will be readily apparent.

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